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HISTORIC PRESERVATION AND THE AMERICANS WITH DISABILITIES ACT:
THE PROBLEM OF HANDICAPPED ENTRY TO HISTORIC BUILDINGS

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A THESIS

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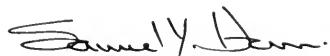
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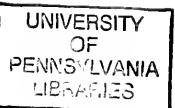
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INTRODUCTION

It is estimated that currently 38 million Americans experience some form of limitation due to chronic disability or illness.¹ This number does not include those with temporary impairments such as broken limbs or pregnancy. With such a large percentage of the population under some form of limitation to their mobility or activity, it is imperative that their needs be addressed and they be allowed to function to the fullest extent possible in our society. The Americans with Disabilities Act (Public Law 101-336) (ADA), passed in January of 1990, sought to redress the deficiency in the treatment of disabled people by making it illegal to discriminate based on that disability. While most of the Act addresses the discrimination of the disabled by people's actions, Titles II and III were included to attempt to address discrimination of the disabled by the built environment.

Now that the Americans with Disabilities Act is a decade old, its impact on the built environment can be analyzed for its effectiveness. The ADA has greatly affected all building types, but has been especially difficult to reconcile with existing structures. Historic buildings are often at great odds with the Act. Preservation professionals, in their quest to preserve the historic integrity of their structures, often find themselves confronted with the difficult task of finding an appropriate compromise between the requirements of the ADA and the preservation of the historic building. The Secretary of the Interior's Standards for the Treatment of Historic Properties further confuses the issue

by recommending as little alteration to the historic fabric of the building as possible. The fact that these Standards are used during the evaluation process for Federal funding as well as many local and State level reviews creates a constant tug-of-war between the need for access and the desire to retain historic integrity.

The different levels of historic integrity required for the different uses of the buildings further increases the tension. In general, two broad categories can be used to encompass these uses: functional buildings and experiential buildings. If the building is to be reused for a public function, more of a functional building, it is easier to argue for more destruction of historic fabric in order to gain greater access for the general public. However, if the building is to be used as a museum, in a sense as an artifact for the education of the public about some aspect of our heritage, then in these experiential buildings it becomes more difficult to sacrifice integrity for access.

There are not only discrepancies between preservation and the ADA but within the ADA as well. The intent of this Act is to provide access to as many people as possible. However, it seems from a non-legal analysis that when it comes to gaining entrance into a building, those with mobility and visual impairments are favored by the ADA. Some disabled individuals, such as those who have the use of their legs but not their arms, would find it difficult to enter a building no matter what the dimensions of the ramp or

¹ John M. McNeil. *Americans with Disabilities: 1994-1995*. (Washington, D.C.: U.S. Bureau of the Census, U.S. Government Printing Office, 1997). [cited 6 January 6, 2000] Available from Disability Statistics Center. Dsc.ucsf.edu/UCSF/pub.taf.

the width of the door since they would have trouble simply opening the door. Other people, such as those with weight problems, may exceed the 32" clear door width established by the dimensions of a wheelchair. While trying to create equality for all people, the ADA must still fall short of its goal since it can not account for every disability.

In the end these issues must be addressed on a case-by-case basis. However, it is possible to derive a design methodology from the experiences of the past decade to guide the decision-making process when confronted with this perplexing issue.

The entire issue of the ADA and historic preservation almost always hinges on the entrance to the historic building. It is from this point that the path of accessible travel begins, and it is often the most difficult design issue to reconcile. The main entrance to historic buildings is one of their most distinctive and historically significant features, yet it is the intention of the ADA to bring as many visitors as possible into the building through the same entrance. This thesis will focus on the entrance to these buildings and the implications of accessibility and historic integrity.

The disabled constitute a large portion of the population which is served by the built heritage and should be allowed to enjoy and learn from it along with others. It should be looked upon as an objective of not only the ADA but also historic preservation to provide as much accessibility as possible to reach as large a segment of the population as

possible. The ADA and historic preservation can be reconciled and work together to allow the built heritage to continue to function and serve the community.

Methodology

The first step in understanding the issues created by the apparent contradiction between the ADA and historic preservation is to establish the background against which any decisions regarding access must be made. This background includes a review of the Secretary of the Interior's Standards for the Treatment of Historic Properties which will be discussed in Chapter 1. These standards, although criticized by many for their inherent contradictions, are still used as the standard to govern work performed on historic buildings and must be addressed by any discussion of alterations and additions to those buildings.

Chapter 2 will address the relevant definitions and sections of the Americans with Disabilities Act which must be reviewed to try to gain an understanding of the actual requirements. This review includes the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and a consideration of the recommended physical dimensions which have been established.

After reviewing the issues raised by each document, Chapter 3 will cover existing solutions that can be analyzed for their appropriateness as well as their detractions. Most

of the existing solutions solve the problem of ADA access but whether they do so while keeping historic preservation in mind is the issue.

After the above mentioned background material has been examined, this information can be used to create a design methodology for the analysis and design of an appropriate ADA solution in the context of a historic setting. This methodology will be outlined and discussed in Chapter 4.

Finally, in Chapter 5, the design methodology will be applied to two case study properties that are in high contrast to one another. The first property is Lucy the Elephant, in Margate, NJ, an elephant shaped building currently undergoing preservation to be used as a museum. The second case study is River House in Philadelphia, PA which is used by the Schuylkill Valley Environmental Education Center as a convention center and scholarly retreat. This building was also the subject of Samuel Y. Harris's Building Diagnostics class during the Spring 2000 semester. This class focused on solutions regarding the existing windows as well as ADA and building code issues of egress.

Chapter 1 will now begin with a discussion of the Secretary of the Interior's Standards for the Treatment of Historic Properties and which section may apply to the Americans with Disabilities Act.

CHAPTER 1

The Secretary of the Interior's Standards for the Treatment of Historic Properties

Originally published in 1977, the Secretary of the Interior's Standards for the Treatment of Historic Properties were developed to determine if proposed work on properties included in the National Register of Historic Places would be appropriate within the Historic Preservation Fund grant-in-aid program. The Standards have been widely used since then to guide work on historic buildings on not only the Federal but the State and local levels as well. The Standards have also been adopted by many historic districts and planning commissions across the country.²

The National Register of Historic Places and, thus, the Standards for the Treatment of Historic Properties, fall under the responsibilities of the Department of the Interior. The Department of the Interior, while considered for many years, was not actually established until March 3, 1849, during the 30th Congress. Its primary responsibility was, and is, to take charge of the Nation's internal affairs. The principal mission of the Department is (1) to encourage and provide for the appropriate management, preservation, and operation of the Nation's public lands and natural resources for use and enjoyment both

² W. Brown Morton III et al., *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings* (Washington, D.C.: U.S. Department of the Interior, National Park Service, Heritage Preservation Services, 1997), pp. v-vi.

now and in the future; (2) to carry out related scientific research and investigations in support of these objectives, (3) to develop and use resources in an environmentally sound manner, and provide an equitable return on these resources to the American taxpayer; and (4) to carry out trust responsibilities of the U.S. Government with respect to the American Indians and Alaska Natives.³

In order to work toward such a broad mission, the Department of the Interior is divided into a number of bureaus and offices. These include the Bureau of Indian Affairs, the Bureau of Land Management, the Bureau of Reclamation, the Fish and Wildlife Service, the U.S. Geological Survey, the Minerals Management Service, the National Park Service which oversees many of our nation's historic properties, the Office of Surface Mining, the Office of Insular Affairs, and the Office of the Secretary.⁴ With the Department of the Interior given the responsibility of essentially managing our Nation's resources, including our built heritage, the Secretary of the Interior became responsible for providing the Standards to which work performed on this heritage was to be held.

There are four treatments for historic properties described under the umbrella of the Standards. These four treatments are Preservation, Rehabilitation, Restoration, and Reconstruction. Although many of the recommendations for each treatment are very

³ Department of the Interior. "Questions from Students." [Cited 6 January 2000] Available from Department of the Interior at www.doi.gov.faq/history.html.

⁴ Ibid.

similar, each treatment has its own focus which differentiates its application from that of the other treatments.

Preservation is defined as the “act or process of applying measures necessary to sustain the *existing* form, integrity, and materials of an historic property.”⁵ This treatment is applied when “the property’s distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a new or continuing use does not require additions or extensive alterations.”⁶ The emphasis of Preservation is placed on the maintenance of the property’s existing features with little or no modification.

In contrast to Preservation, **Rehabilitation** is considered to be “the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.”⁷ This treatment is applied when “repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular period of time

⁵ *The Secretary of the Interior’s Standards for the Treatment of Historic Properties, 1995* (Washington, D.C.: U.S. Department of the Interior, National Park Service, Cultural Resources, Preservation Assistance Division, 1995), p 3.

⁶ *Ibid.*, p 4.

⁷ *Ibid.*, p 5.

is not appropriate.”⁸ Thus, Rehabilitation is concerned with the compatible reuse of a building and those modifications or additions which are necessary to sustain that new use.

Restoration is defined as “the act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.”⁹ This treatment is considered appropriate when “the property’s design, architectural, or historical significance during a particular period of time outweighs the potential loss of extant materials, features, spaces, and finishes that characterize other historical periods; when there is substantial physical and documentary evidence for the work; and when contemporary alterations and additions are not planned.”¹⁰ Restoration is, therefore, concerned with the state of the property at a particular period of time, referred to as the restoration period. The removal of all existing portions of the property that do not relate to this restoration period is not only tolerated but encouraged. The addition of anything that does not relate to this restoration period is discouraged.

⁸ Ibid, p 6.

⁹ Ibid, p 8.

¹⁰ Ibid, p 9.

The final treatment is **Reconstruction** which is defined as “the act or process of depicting, by means of new construction, the form, features, and detailing of a non-surviving site, landscape, building, structure, or object for the purpose of replicating its appearance at a specific period of time and in its historic location.”¹¹ Since Reconstruction is the complete recreation of an entire missing site, its application is rather restricted by the Standards. Reconstruction is deemed appropriate when “a contemporary depiction is required to understand and interpret a property’s historic value (including the re-creation of missing components in a historic district or site); when no other property with the same associative value has survived; and when sufficient historical documentation exists to ensure an accurate reproduction.”¹²

From the standpoint of the Department of the Interior and the National Park Service, access to historic buildings for people with disabilities and compliance with the ADA generally fall under the treatment of **Rehabilitation**. This treatment is the most flexible as far as allowing greater diversity in the types of uses, as long as they require little change to the existing layout of the building or site. This treatment is also more flexible in its recommendations and allowance of alterations and additions to the building or site. Preservation and Restoration allow some alteration or addition to the property in the course of code-required work, but do not include individual standards that govern how these alterations or additions will be incorporated into the building or site.

¹¹ Ibid, p 11.

¹² Ibid, p 11.

Reconstruction simply overlooks this problem and does not mention alterations or additions in any form, even under the rubric of code compliance. So in the discussion of access for the disabled, the **Standards for Rehabilitation** are those which govern the alterations or additions which may be necessary to comply with the Americans with Disabilities Act. (See Appendix A) These Standards are primarily concerned with the maintenance of existing historic fabric. There are only a few which directly address the problem of additions or alterations and these standards will now be specifically be addressed here.

Standard 9 discusses new additions, exterior alterations, and new construction and how they are to be incorporated into the historic property. It is required that new additions, exterior alterations, and new construction not destroy historic materials that characterize the property. It is also required that any new work be differentiated from the historic structures so as not to create a false impression that it is part of the original fabric. While differentiation is required, the new construction must also be compatible with the existing structure in massing, size, scale, and architectural features. This is intended to protect the historic integrity of the site and keep any new construction from dominating the historic buildings.

Standard 10 addresses the issue of reversibility. It requires that any new additions or new construction be able to be removed at a later date without destroying the form or integrity of the historic property or the site. This issue is important when addressing access for those with disabilities since many alterations greatly affect character-defining elements of

the exterior such as stairs, porches, and doorways. Many of these elements have been removed or changed in ways that are not reversible.

A standard which does not address the issue of new construction directly, but may have a great impact on those new alterations in the future, is Standard 4. This Standard notes that changes that have occurred to the property over time often gain their own significance and are to be retained and preserved. Since the alterations being made in the present may one day be considered a significant part of the building's history, it is important that these alterations not only be functional but have architectural merit as well. Those alterations made to comply with the ADA, a significant piece of civil rights legislation, may become important in their own right. Many compliant alterations are made merely functional without much consideration for their design. Creativity can lead to compliant solutions which function properly, enhance the building, and will one day be worthy of preservation.

This idea of creating access solutions which are worthy of future preservation is in direct contrast with Standard 10 which calls for the reversibility of any additions. However, reversibility and good design can apply both since this would provide future generations with the choice of whether to remove or retain the addition. We are too close in time and perspective to be able to predict what constructions of ours will be deemed worthy of preservation in the future. If we can create access solutions, among other necessary additions, that are both sensitively designed as well as reversible, it will be invaluable to

future preservationists who will then be able to make that determination and act accordingly.

Further stress has been placed on the idea of access solutions in the most recent version of the Rehabilitation Guidelines.¹³ In the previous Guidelines, published in 1990, accessibility considerations were addressed as part of the chapter on Health and Safety and Code Requirements. Since the ADA was in its infancy at the time, the 1990 Guidelines placed preservation concerns far above access concerns by suggesting removable ramps which do not comply with the ADA as well as working with code officials for alternatives or variances so as to avoid alterations or additions altogether.¹⁴

In the 1997 Guidelines, a separate section for Accessibility Considerations was created. It is still recommended that as much of the character-defining material as possible is preserved, but further suggests working with local disability groups on the most appropriate accessibility solutions, providing independent barrier-free access, and designing new or additional means of access that are compatible with the historic site.¹⁵ While still rather vague, this section goes farther in addressing accessibility concerns than previous Guidelines.

¹³ W. Brown Morton III et al., *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings* (Washington, D.C.: U.S. Department of the Interior, National Park Service, Heritage Preservation Services, 1997), pp. 96 - 98.

¹⁴ Ibid, pp. 53 - 54.

¹⁵ Ibid, p. 98.

The Secretary of the Interior's Standards for Rehabilitation are the widely accepted standards which govern all aspects of the treatment of historic properties. When considering any action that will affect historic sites, these Standards must be consulted and followed as closely as possible. It is the conflict between the Americans with Disabilities Act and the Standards for Rehabilitation which causes much of the confusion around the question of access. By understanding the true purpose of each of these two forces, it is possible to achieve an acceptable solution which satisfies both and works to preserve the built heritage.

Having now discussed the Secretary of the Interior's Standards for Rehabilitation, we will review the content and issues relating to the Americans with Disabilities Act, especially as it pertains to historic properties.

CHAPTER 2

The Americans with Disabilities Act

Many people are confused about what the Americans with Disabilities Act means for them and their buildings. It is important to understand that the ADA is not a building code. It is a piece of civil rights legislation that also includes a design guideline component known as the Americans with Disabilities Act Accessibility Guidelines (ADAAG). These design guidelines are in no way binding, and following them does not guarantee against a law suit. However, these guidelines have been incorporated into many states' building codes. In that capacity, compliance with the building code ensures against a citation by the State division of Licenses and Inspections that administers the building code.

Since the ADA is not a building code, it is only enforced after the building is built and suit is brought in Federal Court. No one examines the building during construction or alteration to review compliance with the ADA. This "after-the-fact" quality of the ADA has made many building owners uncertain. One search of the Supreme Court and Circuit Courts revealed that, in the past 10 years, a total of only 114 ADA cases have been brought to a conclusion where a decision has been recorded. Of these 114 cases, 112 of them deal with employee and employer issues such as hiring or firing, workers' compensation, and so on. Only two ADA cases have dealt with issues of physical access.

(One of these two cases included an employer discrimination component as well.) One case dealt with a kitchenette in an office building that did not have an accessible sink.¹⁶ The second case dealt with a courthouse that did not have an accessible entry.¹⁷ The sink case was decided for the building owner since it was determined that he had made many accommodations already for the employee and there was another accessible sink located nearby in a bathroom. The entry case was decided for the petitioner and the courthouse was required to install a ramp.

This relatively low number of ADA cases may bring many people a feeling of relief. It seems that the physical access component of the ADA may not be the primary goal of this piece of legislation. However, a negative side effect of so few court decisions is that the vague wording of the ADA which is common to legislation has gone unclarified and will continue to contribute to the uncertainty surrounding this legislation until court decisions serve to clarify it.¹⁸

History

With the Americans with Disabilities Act celebrating its first decade as a ground-breaking piece of civil rights legislation, it is important to note that there have been

¹⁶ Lori L. Vande Zande v State of Wisconsin Department of Administration, James R. Klauser, Lee Martinson, et al., 94-1884 (1995).

¹⁷ Stephen Keith v Joe Mullins, 97-3150WA (1998).

¹⁸ Samuel Y. Harris, Esq., interview by author, Philadelphia, PA, 3 February 2000.

several other laws and regulations which have led to the development of the ADA. These anti-discrimination actions have been instituted at all levels of government and many are still in effect along with the ADA with regard to access for the disabled to existing buildings.

In 1961, one of the first major steps toward non-discrimination in the built environment was undertaken with the development and publication of “Specifications for Making Buildings and Facilities Accessible to, and Usable by the Physically Handicapped” by the American National Standards Institute (ANSI). These standards provide design guidelines for how to make a building accessible to those with physical limitations.¹⁹

In 1968 the Architectural Barriers Act was passed which directed the General Services Administration (GSA) to assure that architectural barriers were eliminated from construction work which was funded by federal loans or grants or was performed on federally owned or leased buildings. The ANSI 117.1 accessibility standards were set as the guidelines to be followed. As this Act applied to existing buildings, the directive was given that any alterations to the building which affected the active use or movement through the building would have to be made barrier-free. This act was regulated by the

¹⁹ Charles Parrott, *Access to the Historic Buildings for the Disabled* (Washington, D.C.: U.S. Department of the Interior, Heritage Conservation and Recreation Service, Technical Preservation Services Division, 1980), pp. 6-7.

Department of Housing and Urban Development, the Department of Defense, the United States Postal Service, and the General Services Administration.²⁰

Three years later, in 1971, the ANSI standards were reaffirmed without revision and additionally strengthened later when they were adopted while formulating the Americans with Disabilities Act Accessibility Guidelines (ADAAG).²¹

In order to accelerate the process of making all buildings that received federal aid accessible, Congress passed Section 504 of the Rehabilitation Act of 1973. Section 504 states clearly for the first time that no person shall be excluded from using a federally owned or funded building because of a disability. Section 504 does not, however, require removal of all architectural barriers. Instead it allows the pertinent functions or programs to be relocated to an accessible area or building as a means of compliance.²²

In 1979, the ANSI standards were again revised to include an option for existing buildings, mainly aimed at historic properties. This option for any governmental bodies that chose to adopt these standards stated that some provision may be made which would allow alternative but equivalent access for these structures.²³

²⁰ Ibid, pp. 7.

²¹ Ibid, pp. 6-7.

²² Ibid, pp. 7-9.

²³ Ibid, pp. 6-7.

These attempts at the federal level to eliminate discrimination toward people with disabilities were supplemented by other laws and regulations at the State and local levels. Yet all such legislation before 1990 only dealt with buildings which were in some way receiving federal money. It was not until the Americans with Disabilities Act that buildings held by private individuals were required to become accessible.

The Americans with Disabilities Act was passed on January 26, 1990 by the 101st Congress. This act not only called for an end to discrimination by the built environment, but included important sections on Employment and Communication as well. Title II of the Act is primarily concerned with Public Services. It not only includes those buildings owned, operated, and funded by the federal government but those which receive money or are owned on the State and local levels as well. It is Title III, Public Accommodations and Services Operated by Private Entities, which broke new ground when, for the first time, privately held and funded properties were held to the same barrier-free requirements as that of publicly held and operated facilities.

With regard to historic buildings, many feel the ADA is confusing or unclear. As civil rights legislation, the spirit of the act is to integrate disabled individuals with the general public to the fullest extent reasonable. When interpreting the ADA, it is the spirit of the act which should be kept foremost in one's mind. With this in mind, the following

detailed account of the applicable sections of the ADA is meant to help clarify the confusion surrounding the act.

Title II

Title II of the ADA applies to public buildings. Section 201(1) defines a public entity as (A) any State or local government; (B) any department, agency, special purpose district, or other instrumentality of a State or States or local government; and (C) the National Railroad Passenger Corporation, and any commuter authority (as defined in section 103(8) of the Rail Passenger Service Act).²⁴ From this definition it can be concluded that Title II applies to State or local government buildings and those buildings or vehicles administered by the National Railroad Passenger Corporation. This includes a large percentage of historic properties as many are government buildings, entitled to government money, or are operated as house museums by the State or locality. Federal buildings are not mentioned as those are administered by Section 504 from which Title II pulls largely for its language and guidelines.

Title II further clarifies with regard to discrimination that “no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of services, programs, or activities of a public entity, or be subjected

²⁴ U.S. Public Law 101-336. 101st Cong., 2d sess., 23 January 1990. *Americans with Disabilities Act.*, Title II, Section 201 (I).

to discrimination by any such entity.”²⁵ The beginning of this definition clarifies that it is the services, programs, or activities that are what needs to be accessible. This opens doors as to accessibility in existing facilities. It is possible that the service in question could be moved to an accessible location that is used by the general public. This would satisfy the act while preserving the historic building. Unfortunately, the last part of the definition is cyclical in nature with discrimination being defined as discrimination. This leaves some acts of a public entity open to interpretation. However, by keeping the spirit of the act in mind, i.e. the mainstreaming of disabled individuals into the general public, much confusion can be avoided on this matter.

With regard to the regulations of the built environment, Title II refers back to Section 504 for its standards.

Title III

Title III of the ADA outlines the requirements placed upon public accommodations and services provided by private entities. In Section 301(6) a private entity is defined as “any entity other than a public entity (as defined in section 201(1)).”²⁶ This means private entities are those which are not the State or local government, any agency of the State or local government, or the National Railroad Passenger Corporation and any commuter

²⁵ Ibid., Section 202.

²⁶ U.S. Public Law 101-336. 101st Cong., 2d sess., 23 January 1990. *Americans with Disabilities Act*., Title III, Section 301 (6).

authority. This broad definition of a private entity includes private dwellings, but this does not mean that private dwellings are covered under the ADA.

The second part of the heading for Title III, public accommodations, addresses this difference. Public accommodation is minutely defined in Section 301(7) into twelve sub-categories.²⁷ These sub-categories represent almost every type of store, restaurant, lodging, theater, park, recreational facility, public transportation station, office, and service provider that can be imagined. A provision has been made to exclude religious organizations and private clubs from the requirements set forth in the ADA.²⁸ From this definition it becomes clear that the private entities to which the ADA applies are those not run by the government which engage in an activity that affects commerce.

Section 301(9) attempts to define one of the most confusing points of the Americans with Disabilities Act – the term “readily achievable.” This term is used to direct most of the requirements of the act and has been a problematic point from the outset. The question is: what is readily achievable? According to the ADA, readily achievable means “easily accomplishable and able to be carried out without much difficulty or expense.” This seems simple but is rather unclear. What is easily accomplishable for one person may not be so for another.

²⁷ Ibid., Title III, Section 301(7).

²⁸ Ibid., Title III, Section 307.

The factors to be considered when evaluating this term are spelled out in the next four subsections: “(A) the nature and cost of the action needed under this Act; (B) the overall financial resources of the facility or facilities involved in this action; the number of persons employed at such facility; the effect on expenses and resources, or the impact otherwise of such action upon the operation of the facility; (C) the overall financial resources of the covered entity; the overall size of the business of a covered entity with respect to the number of its employees; the number, type, and location of its facilities; and (D) the type of operation or operations of the covered entity, including the composition, structure, and functions of the workforce of such entity; the geographic separateness, administrative or fiscal relationship of the facility or facilities in question to the covered entity.”²⁹ The spirit of this section is to limit the required modifications to those which are not out of the realm of possibility by way of their cost, or the extent to which they disrupt the business operations of the public entity. It is similar to a hardship in this way. If it can be proven that the modifications required would be unduly burdensome to the entity in their expense, the time the facility would have to be out of operation, or the amount of the building which would have to be modified, then the modifications may not be required. Since what is readily achievable for a large company is different for that of a small company, concessions are made for a sliding scale. This phrase remains to be tested in the Federal Courts.

²⁹ Ibid., Title III, Section 301(9).

In Section 302(a), Title III states a person cannot be denied access to full enjoyment of goods, services, facilities, privileges, advantages, or accommodations based on a disability. Section 302(b)(1)(A)(i) further clarifies that an individual or group cannot be denied those goods through contractual, licensing, or other arrangements based on a disability. Participation in programs, activities, and so on enjoyed by those with disabilities must be equal to those enjoyed by people who are not disabled as specified in Section 302(b)(1)(A)(ii). The goods appreciated by those with disabilities can not be separate from those without disabilities unless it is necessary to provide as effective a benefit to the disabled as to those without limitations according to Section 302(b)(1)(A)(iii). Section 302(b)(1)(B) states the disabled must be as fully integrated with the general public as is appropriate to their needs. Section 302(b)(1)(C) reiterates that the disabled must be given the opportunity to participate in the same activities, programs and so on as the rest of the public. Section 302(b)(1)(D) makes it unlawful to use administrative processes that discriminate against those with disabilities. Finally, Section 302(b)(1)(E) makes it unlawful to discriminate against someone for a known association with someone who has a disability.

After the basis is set, Title III defines discrimination so as to be perfectly clear what the requirements are. There are two definitions that pertain specifically to architecture and the alteration of existing buildings. First, the ADA defines as discrimination the “failure to take such steps as may be necessary to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently than other individuals because of the absence of auxiliary aids and services, unless the entity can

demonstrate that taking such steps would fundamentally alter the nature of the good, service, facility, privilege, advantage, or accommodation being offered or would result in undue burden.³⁰ This section makes it discriminatory not to provide the physical aids required for individuals with disabilities to enjoy a private entity's goods and services along with the general public. These physical aids include ramps, braille signage, or other aids. There are two exemptions to this requirement provided in this subsection. If a property could prove that providing the aid for a disabled person would inherently change the service being provided, then they do not need to fulfill the requirement. When applied to historic house museums in particular, this definition may be applicable in a way perhaps not intended by those who drafted the ADA. Is it possible that the service provided by a museum, namely the education of the public regarding the lifestyle and architecture of previous generations, could be diminished by the addition of physical aids to access which would destroy the ability of the building to convey its message? Unfortunately, this idea has never been tested in the courts. It is only under the ADAAG, discussed later, that some clarification is obtained. This argument would, however, contradict the spirit of the ADA which is to integrate disabled people into the population to the fullest extent possible.

The second exemption from the above requirement is if there would be an undue burden placed on the facility by the requirement to provide aids. This "undue burden" is as unclear as reasonably achievable is. An undue burden would include an exorbitant cost

³⁰ Ibid., Title III, Section 302(b)(2)(A)(ii).

or extreme demolition and rebuilding. These criteria would need to be reviewed on a case by case basis and would again be evaluated by the size of the organization, the organization's financial resources, the amount of time the organization would need to be closed to perform the construction.

The second definition of discrimination that pertains to architecture makes it discriminatory to fail to "remove architectural barriers, and communication barriers that are structural in nature, in existing facilities, and transportation barriers in existing vehicles and rail passenger cars used by an establishment for transporting individuals (not including barriers that can only be removed through the retrofitting of vehicles or rail passenger cars by the installation of a hydraulic or other lift), where such removal is readily achievable."³¹ This subsection means it is not only required to add things to enable the disabled to use the facility but you must remove any impediments which would keep them from using the facility. This removal must only occur where it is readily achievable.

If this removal is not readily achievable and this fact can be demonstrated by a facility, the next subsection in the ADA requires that goods, services, facilities, privileges, advantages or accommodations must be provided by an alternate method, if this is readily

³¹ U.S. Public Law 101-336. 101st Cong., 2d sess., 23 January 1990. *Americans with Disabilities Act.*, Title III, Section 302(b)(2)(A)(iv).

achievable.³² Such alternate methods of providing goods and so on can include using video presentations to show disabled visitors the second floor of a house museum which cannot be made accessible.

The final provision of the ADA in regard to architecture is contained in Section 303 - New Construction and Alterations in Public Accommodations and Commercial Facilities. The alterations subsection, Section 303(a)(2), pertains to historic buildings. This section states that when an alteration is made that could affect the usability of a facility by a disabled person, those alterations must be made as accessible as is reasonably feasible. When the alterations are made to an area that houses the primary functions of the facility, then the path of travel from the entrance to this primary function area must be made accessible to the maximum extent feasible. The additional alterations are not only restricted to the path of travel but the bathrooms, telephones, and drinking fountains that serve the primary function area must also be made accessible. This requirement is waived if the alterations to the path of travel, bathrooms, telephones, and drinking fountains are disproportionately high to the overall scope or cost of the work.

The Americans with Disabilities Act Accessibility Guidelines (ADAAG)

As previously mentioned, the accessibility guidelines for the ADA are used to guide what is accessible and what is not in new construction and additions based upon physical standards of the average disabled person. Most of the physical guidelines deal with the

³² Americans with Disabilities Act, Title III, Section 302(b)(2)(A)(v).

requirements of those who are wheelchair bound as they have some of the most stringent requirements. It is thought what is accessible for them is often accessible for others. However, the needs of the deaf and blind are also addressed in these physical guidelines, but many of these fall outside this discussion as they do not apply to building entrances.

Section 4.1.7 deals with the issues of accessible buildings and historic preservation. This is where any requirements for the alterations to historic buildings would start. In general, historic buildings are to comply with the requirements set forth in the previous section, 4.1.6, which applies to building alterations and all of those applicable technical specifications outlined in section 4 as well as other special sections as they may apply unless it can be shown that compliance with these requirements would destroy the historic significance of the building. In this case, the alternative requirements which are set forth in section 4.1.7(3) may be applied, but only to the specific feature which was found to alter the significance.³³ All other features in the alteration which do not affect the significance must still follow the more stringent guidelines in section 4.1.6. This spells out quite clearly that historic buildings are not exempt from the ADA or the ADAAG.

Section 4.1.7(1)(b) lists the definitions of a qualified historic building. These are buildings that are listed on or eligible for the National Register of Historic Places or are

³³ Americans with Disabilities Act Accessibility Guidelines, Section 4.1.7(1).

designated as historic under an appropriate State or local law.³⁴ These guidelines do not allow any building simply because it is old to be considered a qualified historic building.

Procedures are set forth in section 4.1.7(2) for the review required before a building can be allowed to use the less strict standards set forth in section 4.1.7. If a building is to receive federal funds for the project, the National Historic Preservation Act (16 U.S.C. 470 f) already requires what is known as a Section 106 review where the effects of the alteration on the structure are considered.³⁵ This is run by the State Historic Preservation Officer (SHPO) or Advisory Council who would also determine if the intended ADA alterations would destroy the building's significance.³⁶

In the event the property is not receiving any federal funds and, therefore, will not undergo a Section 106 review, the entity that is undertaking the alterations can bring the threat to the attention of the State Historic Preservation Officer itself.³⁷ The ADAAG also stipulates that anyone who may be interested in the outcome of this process be invited to participate. This may include accessibility officials, individuals with disabilities, disability advocacy groups, and other historic preservation groups.³⁸ Finally,

³⁴ Ibid., Section 4.1.7(1)(b).

³⁵ Ibid., Section 4.1.7(2)(a)(i).

³⁶ Ibid., Section 4.1.7(2)(a)(ii).

³⁷ Ibid., Section 4.1.7(2)(b).

³⁸ Ibid., Section 4.1.7(2)(c).

the ADAAG allows the SHPO to delegate such reviews to a local government historic preservation program, but only if such a program is certified in accordance with section 101(c) of the National Historic Preservation Act.³⁹

Next the ADAAG sets forth the minimum requirements that may be followed by historic buildings in section 4.1.7(3). The applicable section is 4.1.7(3)(b) which requires that at least one entrance which is used by the general public be made accessible and comply with section 4.14. If such a general entrance can not be made accessible, then a non-public (employee only) entrance can be used as the accessible entrance if directional signage and a notification system is provided. If security at this entrance is an issue, a remote monitoring system can be used.

A second applicable point is the exception listed under section 4.1.7(3)(a). This section states that at least one accessible route that complies with section 4.3 be provided from the site access point (such as a parking lot or street) to an accessible entrance. The exception reads that a ramp with a slope no greater than six inches of run for every one inch of rise shall be allowed as part of the accessible route if it does not exceed two feet of run. This exception allows a much steeper slope than the usual 12 inches of run for every one inch of rise and, therefore, produces a shorter ramp. However, the two foot cut-off means that the total height of the ramp in this case can not be more than four

³⁹ Ibid., Section 4.1.7(2)(d).

inches above the ground. (six inches of run x four inches of rise = 24 inches or two feet)

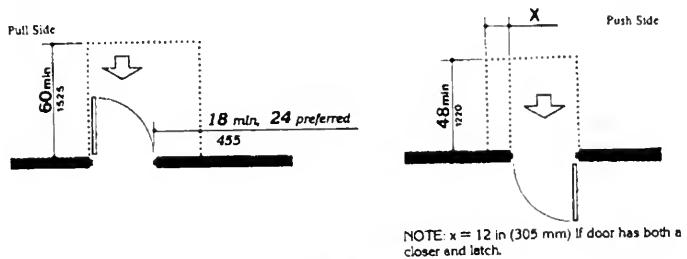
This means that the rise above the ground is less than 1 step which precludes the use of this exception in many cases.

The requirement for one accessible entrance to comply with section 4.14 leads to the question of what section 4.14 says. This section does not clarify much. It again states that the entrances that are required to be accessible must be on an accessible route and shall not be service entrances unless those are the only entrances to the building.⁴⁰ No dimensions are called out at this time.

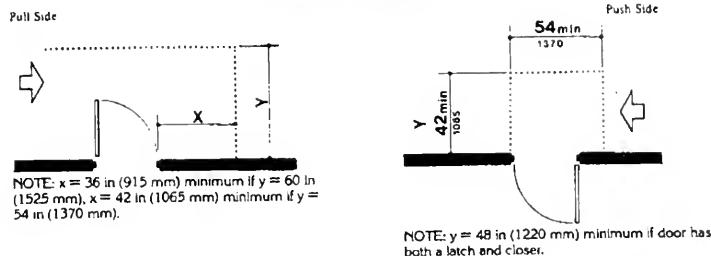
Doors are discussed in depth in section 4.13. Section 4.13.5 declares the clear width of an accessible door, that is between the face of the door when it is open 90 degrees and the opposite stop, to be a minimum of 32 inches. Any doors, such as those for closets, that do not require a person to go through them, can be reduced to 20 inches minimum.

Section 4.13.6 outlines the maneuvering clearances that are to exist at doors when they are not automatic or power-assisted. This floor area is described in a figure and is most easily expressed in that manner. The floor area is to be clear and level. This also means the stoop in front of an entry door must have at least the discussed clearances.

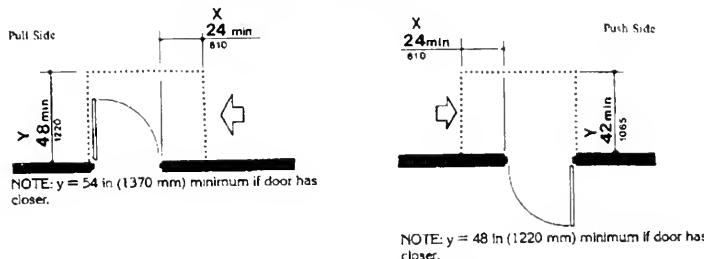
⁴⁰ Ibid., Section 4.14.



(a)
Front Approaches — Swinging Doors



(b)
Hinge Side Approaches — Swinging Doors

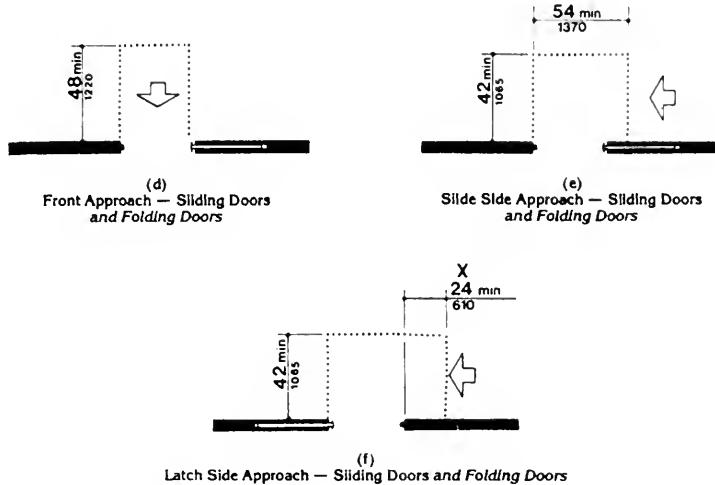


(c)
Latch Side Approaches — Swinging Doors

NOTE: All doors in alcoves shall comply with the clearances for front approaches.

Fig. 25
Maneuvering Clearances at Doors

Figure 1 - Americans with Disabilities Act Accessibility Guidelines



NOTE: All doors in alcoves shall comply with the clearances for front approaches.

Fig. 25
Maneuvering Clearances at Doors (*Continued*)

Figure 2 - Americans with Disabilities Act Accessibility Guidelines

Section 4.13.8 says that the threshold at a doorway shall not be greater than three-quarters of an inch in height for exterior sliding doors or half an inch in height for other types of doors. Raised floor levels or thresholds are to be beveled with a slope no more than two inches of run for every one inch of rise. That means a half inch threshold will have a bevel that projects forward one inch.

Door hardware is regulated by section 4.13.9. All door hardware, which includes handles, pulls, latches, and locks, are to have a shape that is easy to grasp with one hand. No tight grasping, tight pinching, or twisting of the wrist to operate the hardware is allowed. Lever-operated hardware, push plates, and U-shaped handles are listed as acceptable. This regulation often precludes historic hardware.

The maximum force required to operate a door is outlined in section 4.13.11. The subsection which would apply to this thesis, that for exterior hinged doors, was marked as "Reserved" with no further clarification as of February 17, 2000. Many historic doors which are warped or difficult to operate would most likely require fixing when this regulation is clarified.

The design of ramps for accessibility is clearly outlined in section 4.8. The most relevant details are that anything with more than a 1:20 slope (20 inches of run for every one inch of rise) will be considered a ramp. Ramps are to have a maximum slope of 1:12 (12 inches of run for every one inch of rise) unless the above mentioned historic building exception is allowed. The maximum rise for any run shall be 30 inches or approximately four steps. Ramps shall have a clear width between handrails of 36 inches. Landings are required at the bottom and top of a ramp. The minimum size of a landing is as wide as the ramp by 60 inches deep. Where a ramp changes direction, the landing should be 60 inches by 60 inches. When a ramp rises more than six inches, it is to have handrails on both sides. There are individual regulations for the design of the railings.

Section 4.11 regulates the design of platform lifts. Other than the design of platform lifts which is regulated by sections 4.2.4, 4.5, and 4.27, it is stated in section 4.11.3 that platform lifts must facilitate unassisted entry, operation, and exit from the lift.

Section 4.2.4 regulates clear floor or ground spaces for wheelchairs. The minimum floor or ground space for a single, stationary wheelchair and occupant is 30 inches wide by 48 inches deep. This floor space may be positioned for forward or parallel approach to the object, namely the platform lift.⁴¹ The next subsection states that the clear floor or ground space must have one full side adjacent to an accessible route or another clear space. Otherwise, if the clear space is on all or part of three sides, additional maneuvering clearances will be necessary.⁴² The final subsection relates to the surfaces for these clear spaces and refers to section 4.5.⁴³

Section 4.5 is devoted to ground and floor surfaces. In general, ground and floor surfaces along accessible routes and in accessible rooms and other spaces are to be stable, firm, and slip-resistant. These ground and floor surfaces include floors, walks, ramps, stairs, and curb cuts. Note that this requirement only applies to accessible spaces.⁴⁴

⁴¹ Ibid., Section 4.2.4.1.

⁴² Ibid., Section 4.2.4.2.

⁴³ Ibid., Section 4.2.4.3.

⁴⁴ Ibid., Section 4.5.1.

Any changes in level up to one-quarter of an inch between floor surfaces do not require any sort of edge treatment. Anything between one-quarter and half an inch requires a bevel as previously discussed. Anything above $\frac{1}{2}$ inch will be considered a ramp and will need a 1:12 slope unless the 1:6 slope exemption for historic buildings has been deemed appropriate.⁴⁵

The next section refers to carpet which is beyond the scope of this work as it is inappropriate as a surface for handicapped accessible routes due to its slick surface. The final subsection refers to gratings. If these are located on walking surfaces, they are to have spaces less than or equal to half an inch wide in one direction. Any elongated openings are to have their widest dimension perpendicular to the path of travel.⁴⁶

Section 4.27 deals with the controls of the platform lifts. Since these will most likely be part of the manufacturer's design of the lift, they will not be addressed here.

While the Americans with Disabilities Act Accessibility Guidelines may sound like a building code and look like a building code, it is not in fact a building code. These guidelines provide dimensions along with the knowledge of how physical accessibility is best provided.

⁴⁵ Ibid., Section 4..5.2.

The Americans with Disabilities Act along with the Guidelines is meant to provide those with disabilities the opportunity to participate in everyday activities along with the general public to the fullest possible extent. It is with this in mind that the confusion which surrounds the language of the ADA can be clarified. The ADA does apply to historic buildings. But the extent of the modifications required can be reduced in order to protect the integrity of these buildings as long as the disabled are not being segregated or treated unreasonably differently than others.

Now that the ADA and the associated Guidelines have been discussed, we will examine existing solutions that have attempted to, in physical form, reconcile the issues of the Act with those of historic preservation.

⁴⁶ Ibid., Section 4.5.3.

CHAPTER 3

Analysis of Existing Solutions

Many existing buildings have already complied with the ADA in some form and, therefore, the effectiveness of these solutions can be studied. Through this examination, it is possible to categorize existing solutions by their primary attributes and discuss the benefits and detriments of each type of solution. This examination will provide the foundation for the development of a design methodology which can be applied to future access solutions.

While reviewing the existing types of access solutions, it is important to remember the keys to what makes a good ADA solution. These keys include independent operation, safety, the ability to access the same entrance as the general public, and the ability to integrate the solution into the historic environment with as little impact on the building as possible. Based on operation, there are two main categories of solutions that are commonly found: passive solutions and mechanical solutions.

Passive Solutions

Passive solutions are those which do not require moving parts for a disabled individual to operate them. These modifications or additions fall into several categories: ramps,

including straight run and angled; grade changes; the modification of a window into a door; and the lowering of a door opening to grade level.

Ramps

Ramps must be one of the most prevalent solutions to the issues raised by the ADA. They are so prevalent in fact that they have become almost synonymous with the ADA. Ramps are easy to use in that they do not require manual operation by a disabled person.

There are two primary ramp shapes, the straight run and the angled. The straight run ramp is used for shorter rises, possibly fewer than two steps. This is mostly for space reasons as not many buildings can accommodate a long run of ramp. Building codes require 12 inches of run for every one inch of rise. This would mean a rise of two steps, each seven inches high for a total of 14 inches, would require a straight ramp of 14 feet in length. The second ramp type, the angled ramp, can make a number of turns at several landings in order to reach the required rise. Thus it can be used in spaces where the length of the straight run ramp can not be accommodated. In this case the width of the ramp may become an issue. It is clear that the proportion of a ramp to the building can become unwieldy when too many steps need to be overcome.

However obvious ramps may seem as a solution to the problem of stairs in historic buildings, they do have their shortcomings. As has been discussed previously, ramps are not appropriate solutions for accessing doors higher than three steps above ground level

as the site can often not accommodate the length. Even when the site can physically hold any size ramp, it can become too dominant a feature of the façade by way of its mass and scale and overpower the historic nature of the building. The railing requirements of ramps can also dominate a historic façade and change the focus of a building from the architecture to the ramp. Further, ramps are exposed to the elements and can become slippery when coated by rain, ice, or snow.

The possibility does exist to conceal ramps in order to minimize their visual impact on the site. The straight run is often easier to conceal as it is usually lower to the ground and can sometimes blend with the façade or be camouflaged by building elements or plantings. The straight run ramp is usually appropriate for all building facades due to this greater ability for concealment.



Figure 3 - Women's Museum, Washington, D.C. The new ramp is camouflaged behind an existing balustrade which used to shield one of two original basement air vents.

The angled ramp is less easy to conceal because of its height and mass. The angled ramp appears heavier than the straight run and is therefore usually inappropriate for a primary façade.



Figure 4 - Locust Walk, Philadelphia, PA. This angled ramp significantly detracts from the historic façade.

Grade Change

One of the most subtle ways to achieve disabled access to a building is by re-grading the earth in front of the door to slowly rise to the threshold. This has been used effectively at many historic sites including Williamsburg.⁴⁷ Grade changes are only suitable for those sites where the level of the door is approximately one step or less above the ground. The required slope for this access solution is shallower than a ramp since there is no railing for users' safety. For this reason, a grade change can be no steeper than 20 inches of run

⁴⁷ Valerie Coons and Carl R. Lounsbury, "Approached to Improving Access in Historic Complexes" *Technology and Conservation* (Spring 1994) pp. 31, 34.

for every one inch of rise. This translates to a 10 foot length of ground to accommodate a six inch stair. So, similar to the straight run ramp, grade changes can only be achieved where there is enough room in front of the door to allow such a gradual rise.



Figure 5 - Old South Meeting House, Boston, MA. The area in front of the door has been re-graded to allow wheelchair access. Other doors retain the historic steps.

Other than the space required to achieve a grade change, there are some additional problems which may occur. Building earth up to the door level can cause the foundation and siding to deteriorate more quickly due to the increased moisture held by the earth against the building. The new grade must be “paved” with a non-skid material so that mud does not cause canes, carriages, wheelchairs or other aids to become stuck. Paving

materials such as bricks or flat stones may not be entirely appropriate for certain historic buildings but a loose material would not only be a hazard but could wash off the slope with a heavy rain.

Even with all these objections, such a subtle effect achieves the goal of access without drawing attention to the solution. Re-grading does not require a special entrance or any additions to the building which would detract from its significance.

Window to Door Alteration

One of the more drastic changes to historic buildings in the effort to provide access is the creation of a new entrance by cutting a door into a window opening. While this can be a dramatic change to the rhythm of solids and voids of a building's façade, it can also provide a simple solution to the access problem when no solution at an existing entrance is acceptable.

The most stringent objection to this solution is that it requires the removal of an existing window and original building material. As noted before, it also changes the fenestration patterns of a building and so should be avoided as a solution for a façade of any architectural importance. When designed sensitively, the new door can effectively emulate the existing windows and reduce the jarring effect of a new entrance. A third issue raised by this solution is that it could be mistaken for the original building

configuration thereby causing confusion as to what is historic material and that could lead to the creation of false impressions.



Figure 6 - The Beal Building, Boston, MA. The window on the right of the entrance has been replaced with a new accessible door which leads to an elevator lobby.

Lowering an Existing Door

The solution of lowering an existing door to ground level so as to eliminate exterior stairs leads to a number of issues on both the exterior and the interior of the building. On the interior of the building, which is not part of the scope of this work, this solution will only work where the interior floor level can also be lowered. On the exterior, the space above

the new door will require in-filling. This can be achieved with an overdoor sensitively designed to blend with the style of the door such as glass or paneled wood.

Completely removing an important exterior element such as stairs during the process of lowering an existing entrance can reduce the historic integrity of the building drastically. As with enlarging a window opening to fit a new door, the new configuration can be confused with the original which is in direct opposition to the goals of historic preservation.



Figure 7 - The Oakwood, Boston, MA. The original front door has been lowered to grade level. The area above has been in-filled with corrugated metal.

Mechanical Solutions

Mechanical solutions require moving parts for the disabled individual to manipulate them into the appropriate position. These solutions often require the help of a second person, for a variety of reasons, and therefore, independent access can be compromised.

Mechanical solutions are as simple as a folding ramp or as complex as a lift.

Folding Ramp

Folding ramps have been used in areas where there is not enough space before the door for the entire run of a straight run ramp or the width of an angled ramp. While the folding ramp provides access in a smaller amount of space, it requires the help of a second person. The disabled individual may be able to unfold the ramp but could not possibly re-fold it once inside the building. This limits the effectiveness of this solution for independent access.



Figure 8 - 4201 Spruce Street, Philadelphia, PA. The last half of this ramp is currently folded in on itself for storage.

Lifts

There are several types of lifts available today. The standard lift is a small platform with railings that is permanently fixed to the side of a porch or stoop. The disabled person is able to position himself onto the platform, close the railing, and push a button to lift the platform to the height of the porch or stoop. Lifts often allow disabled people access to the historic porch and thus the main entrance. These standard lifts are not attractive and have parts such as the motor which need to be concealed. This can often be accomplished with some well-placed landscaping.



Figure 9 - 4601 Spruce Street, Philadelphia, PA. This wheelchair lift provides access onto a porch that is five steps above grade. It is shielded from view by a low wall and landscaping.

A similar lift is one which is stored below ground and is only visible when it is being used. This type of lift has a platform which is paved in the same material to that around the entrance so it is practically invisible to the unknowing observer. The railings required

by code retract below ground with the lift so they are not visible either. The motor is concealed below the lift. The operation is very similar to that of the standard lift, but the impact on the historic structure is greatly reduced.

The previous two types of lifts require a porch or stoop with enough depth to allow a person in a wheelchair to navigate safely on and off the lift. This will not work where the stairs end at the threshold of the door. A type of lift which solves this problem is one that is able to project a “bridge” from the lift platform over the stairs and to the threshold. This type of lift is paved with the same material as the area around the door and is nearly invisible. It has been used successfully at the Old State House and in Boston. Independent access is reduced by the need for someone to install the railings to the lift prior to its operation.

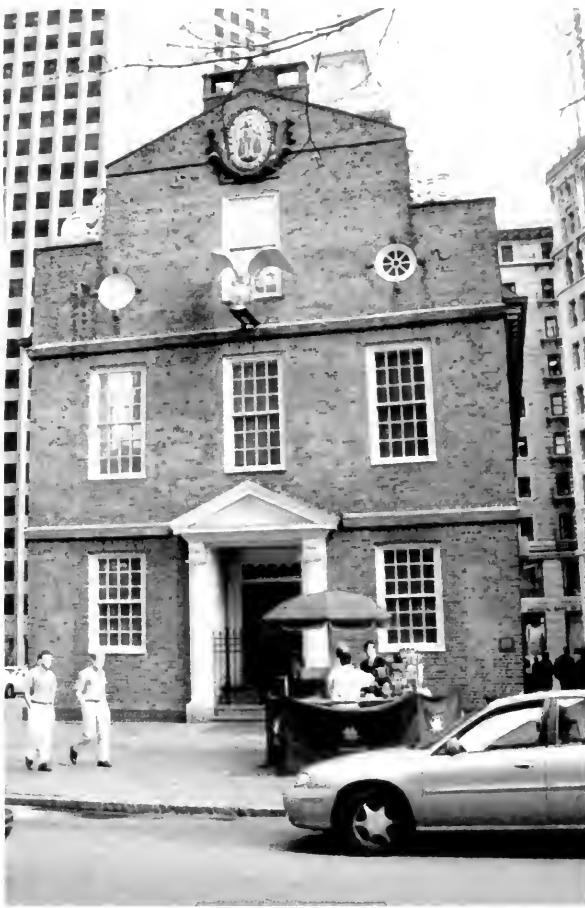


Figure 10 - The Old State House, Boston, MA. The bricks set into the walk in front of the entrance are actually the top surface of the lift.

All of these lift types share many of the same problems. The mechanical parts of the lift need regular maintenance especially where they are exposed to the elements. A lift

which is out of service means a disabled person is completely unable to enter the building. It is often an issue that the lifts must be locked in order to protect them and the building from vandalism or keep the general public from injury. This negates the disabled individual's ability to use them independently and reduces their effectiveness as access solutions.

Additional Solutions

In addition to solutions which focus directly on the entrance itself, there is the possibility of constructing an addition to the historic building which is accessible itself or provide a new connection to an adjacent building which is already accessible. These solutions are often costly as they require the construction of building additions. They do, however, solve many of the accessibility issues since not only the new entrance but also a new elevator can be provided for access to all floors.

Such additions can change the character of the historic building by increasing its size or obscuring architectural features that contribute to the structure's historic integrity. Since the addition or connection is less likely to be built on the building's primary façade, it does not always address the issue of access into the main entrance. However, it is a solution that has been successfully used and deserves mention.

This discussion of existing ADA solutions for historic buildings presents those issues which must be confronted when solving the problem of compliance. These issues can now be summarized into a design methodology, outlined in the next chapter, that can be followed by any site during the preparation and design phases in order to create solutions that respond to the needs of the historic property as well as the needs of the ADA.

CHAPTER 4

Design Methodology

Now that the appropriate background information has been reviewed, it is possible to formulate a methodology to be followed when assessing a property for ADA accessibility and producing a solution.

Prior to making decisions about modifications to historic buildings, there are two issues to consider which will help provide a direction: 1) the reason why people come to the building and 2) the architectural significance of the building. The reasons why people come to a historic building generally fall into two broad categories. People can come to the building because of the function it contains inside or to experience the building itself. These two reasons can lead to different considerations during the design of any modifications. These categories apply in varying proportions to each historic property.

Experiential Buildings

Experiential buildings are those where it is the building itself which draws the public. These buildings, mostly monuments and museums, are the important activity in themselves. In this case, it is more important to maintain as much of the original building fabric as possible in order to enhance the enjoyment of the largest segment of the population. Since it is only those who are permanently wheelchair bound that *require*

extensive physical modifications to buildings such as increased door widths and ramps or lifts, these buildings may be a case where the needs of the majority outweigh the needs of the few. It is a continuous give and take between the ADA and historic preservation and, in the case of experiential buildings, the preservation of these important buildings may take precedence over extensive physical modifications.

Functional Buildings

Many historic buildings, although architecturally interesting, draw the public because of the function they house within their walls. With these buildings, it is important to be able to bring as many people into the building as possible. In these cases, the give and take between ADA and preservation should swing toward greater accommodation.

In some cases, such as the Capitol Building, the experience of the building and the functions it houses are equally important. In these instances, it is best to try and maximize both the ADA and preservation considerations.

Architectural Significance

The architectural significance of a historic building is comprised of the physical features which make a building what it is. This can be the same as the building's historic significance, as is the case with buildings that are important for their aesthetic considerations. In many cases the historic significance of a building will be more associative such as when certain people or events are associated with the property. The

historic significance is important to the property, but will probably not affect the choice of an access solution to the extent that the architectural significance will.

Determining what is architecturally significant about a historic building will help guide any modification issues by making sure the important elements of the building are not lost as a result of the modification process. As this thesis is only concerned with the exterior of the building, those elements of significance on the interior will not be addressed. That does not mean that there are not important building elements on the interior and those should be considered along with the exterior elements when making building modifications. The interior considerations are a separate but equal concern.

The three steps to determining the architectural significance of a building are the 1) overall inspection, 2) detailed inspection, and finally 3) interior evaluation.⁴⁸

Overall Inspection

Standing some distance from the building, perhaps across the street, investigate those elements which characterize the building overall. These include its setting, its shape, its roof and roof features, any projections from the building such as bay windows and

⁴⁸ Lee H. Nelson, FAIA, *Preservation Briefs 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character* (Washington, D.C.) p. 1.

porches, recesses or voids which create shadows on the building, the pattern of the building's openings, and the exterior materials.⁴⁹

Setting

The setting of the building is comprised of its relationship to the property on which it stands as well as the physical features of the property itself. Some buildings, such as those considered part of the Modernist movement, are detached from their setting and seem to appear as objects in space. Some buildings, such as those built during one of the picturesque movements, blend with their environment and can almost seem to rise out of the landscape itself. This relationship between the building and its setting is not only part of the architectural significance of the building but will also affect what access solution will be appropriate for the building.

Shape

The shape of the building is very important to the architectural significance. Some buildings are simple cubes and others are comprised of many different shapes piled together to form a whole. The overall shape of the building will be very important in selecting an entrance for the access solution. The shape of the building may also help camouflage the access solution.

⁴⁹ Ibid., p. 1.

Roof and Roof Features

While the roof may not affect the final solution to the issues raised by the ADA, it does comprise an important part of the architectural significance. The roof can be simple or complex. It can be steep or shallow. It can be comprised of one material or contain a pattern. All of these aspects must be considered when evaluating the architectural significance of a building.

Projections

Projections are smaller scale elements of a building that do not contribute to the shape of the building envelope. These can include porches, bay windows, terraces, balconies, and so on. These projections not only contribute to the architectural significance and, therefore, should be maintained, but, in the case of porches and steps, they can provide places where access solutions can be anchored to the building.

The existence or absence of projections can change the look of a building dramatically. A building without any protruding elements can be very affected by any additions. The removal of projections such as porches or steps will have a similar adverse affect. It is not only the existence of the projections that contributes to the buildings architectural significance but their design as well. Some are very solid and heavy in appearance while others are light and composed of small, stick-like elements. The appearance of the projections should be considered by any additions. Any alterations to their appearance

such as enclosing a porch or removing steps should be carefully considered as to its impact on the architecture of the building.

Recesses or Voids

Recesses and voids are the opposite of projections in that they project inward from the building's façade. They create places of shadow that are integral to the building envelope. Filling in these voids to provide access would greatly affect the appearance of the building and must be considered carefully.

Pattern of Openings

Depending on the period in which the house was built, the window and door openings can be arranged in different ways: symmetrically, asymmetrically, by descending height with each story, and so on. The positioning of the windows is an essential part of the building. This is why altering window openings into door openings to provide access can significantly alter a building, especially when the window pattern is regular and symmetrical.

Similarly, the number and size of openings in a building is part of its architectural significance. Many large windows in a building façade give the building a light appearance while a few, small windows gives the impression of weight. Adding openings that are out of scale or enclosing existing openings can have an adverse impact on the architectural significance of a building.

Exterior Materials

The way the materials are used to create the outer surface of the building is very important to its significance. Facades can be intended to be very smooth with few joints or they can be intended to emphasize every joint. Wood siding can be overlapped to shed water or it can be butted one against the other for a smooth surface. Bricks can be machine-made to produce very tight joints with the mortar made to match in color or they can be molded to look rough in order to give a rugged appearance to the building. Whatever the surface, it is an integral part of the building image and should be maintained with whatever building modifications are proposed.

Detailed Inspections

This type of inspection is conducted close to the building. It is meant to extract the details that are important to the building's character.

Molding and Trim

The width and intricacy of molding and trim has varied throughout history giving buildings a different feel as to their weight and proportions. The scale and complexity of the molding and trim should be considered by any additions to a building.

Material

Material is not only important to the overall inspection of a building but contributes to the detailed inspection as well. What looks like a smooth surface from across the street may have subtle variations that are only visible upon close inspection.

The architectural significance review may not yield information that will contribute directly to the design and placement of an access solution. It is, however, necessary to know what makes a building the way it is before you can make any alterations. This will help ensure the alterations will be sensitive to the building's nature and not destroy what makes up the physical presence of the building.

Documentation

Documentation is a simple part of most processes that is considered so common sense that it is often overlooked. Although most preservation professionals understand the value of documentation for future maintenance and preservation efforts, it rarely finds its way into written guidelines. A complete documentation package for any project could include:

- Photographs of the building before work has begun
- Measured architectural drawings
- Construction documents

- Construction specifications
- Project correspondence

This documentation is very helpful in educating future generations about the scope of the work performed as well as the reasons behind the decisions made. All of this will be invaluable to anyone who works with the site in the future, especially if they choose to reverse the work which was performed.

Entrance Determination

The first decision to be made regarding any building modifications for ADA compliance is the selection of which entrance will be used to allow disabled individuals access to the building, and, therefore, which façade will be altered. It is in this capacity that the architectural significance of the building will be most helpful.

In keeping with the spirit of the ADA, the first choice for an ADA entrance should be that used by the general public. The final selection of the entrance will be affected by many other factors, however. Usually, the main entrance is on a primary building façade and is therefore less able to be modified without affecting the architectural significance of the building. Additional criteria must therefore be examined.

The ease of access from the handicapped parking spaces to the entrance is of considerable importance. If this is not possible, it may be necessary to establish a secondary entrance

which is accessible by all from the parking area. This would probably be greatly appreciated by the majority of the public as well as those with disabilities.

The height of the door above the ground is one of the key factors in selecting an accessible entrance. The closer the door is to the ground, meaning fewer steps, the more choices are available and the less obvious the modification will be. The modification will also be easier to camouflage with landscaping or building elements.

The existence of an appropriately sized porch or stoop which can be used as a landing for a ramp or lift in front of the door is important. If an existing porch or stoop can be used, the ramp or lift can possibly be hidden next to it to provide some camouflage, and the building will not have to be modified to provide a landing.

The existing width of the door needs to be considered. It would be easier if the original door already has the 32" clearance required by the ADA Accessibility Guidelines. It is preferable to find a door which is already wide enough than to consider widening an existing door or creating a door out of a window opening.

Finally, the interior conditions need to be considered. The vestibule or lobby onto which the door enters may have additional obstacles that will need to be overcome to provide access beyond the door. It is best to provide entrance to a location that will allow access to the other parts of the building.

Ultimately, the selection of an entrance will most likely dictate the type of solution used for access. As discussed in Chapter 3:

Re-grading can only be effective where the door is one step or less above grade. The required slope is 20 inches of run for every one inch of rise so enough space in front of the building is required.

Ramps are most effective where the door is less than 30 inches or about four steps above grade. Even the less stringent one in six slope requires a 15 foot ramp so the building needs to be able to handle this size ramp.

Lifts can be used up to 10 feet above grade and are best in situations where the door is more than two steps above the ground. A landing onto which the lift provides access is required so it is best to select an entrance with an existing porch or stoop.

Additional Design Considerations

Whatever solution is ultimately chosen, there will be other physical attributes associated with that solution that will require careful consideration so they are harmonious with the historic building. While the Secretary of the Interior's Standards for Rehabilitation states that any additions to historic buildings must be able to be distinguished from historic

fabric, it does not dictate to what extent. Designers have often stumbled on this requirement when subtle differences may be all that are necessary to comply.

Railings

There are many building codes that govern the dimensions of railings on ramps. These codes, coupled with the Secretary of the Interior's Standards, have contributed to the unimaginative designs that proliferate today.

Railings that meet the code and the standards can be designed using elements that are appropriate to the architectural period of the house. Proportions of these elements can be changed to conform to modern height requirements. Probably the most difficult requirement is that vertical elements of the railing be less than four inches apart to prevent a small child's head from being caught in the railing. Balusters could be moved closer together or additional elements painted to fade with the background could be incorporated to meet the code but provide a more historic character to the railing.

Surface Material

The ADA requirements reviewed in Chapter 2 indicate a need for even, slip-resistant surfaces on all parts of the path of travel. This requirement does not inherently mean that all surfaces must be concrete, a common treatment. When considering the surface for the path of travel, paving materials which are more appropriate to the period of the building can be used. For example, where cobble stones might have been, flat paving stones may

be able to be substituted. This attention to detail will help integrate the access solution into the historic setting.

When designing access solutions, many physical aspects of the building must be taken into consideration. The appropriateness of the solution to its application must also be addressed. It would be overkill to use a lift to bring visitors up four inches and it would be ridiculous to re-grade the ground to provide access up four steps. Solutions can be integrated into their surroundings while still differentiating themselves enough to maintain the historic integrity of the structure.

This design methodology can now be applied to two case study properties in order to clarify the objectives and show how the methodology would be put to use in the field.

CHAPTER 5

Case Study Analysis

Using the methodology developed in the previous chapter, two properties can be analyzed to find an appropriate ADA solution. The two properties to be analyzed are Lucy the Elephant in Margate, New Jersey and River House in Philadelphia, Pennsylvania.

Lucy the Elephant

As the name would imply, Lucy, as she is known, is a building in the shape of an elephant. As might be expected, an elephant-shaped building has many special requirements and presents some unique challenges to those who would propose modifications for accessibility.

*History*⁵⁰

An elephant building does not come about by accident. Lucy was built in 1881 by real estate developer James Vincent de Paul Lafferty, Jr., originally of Philadelphia. At that time, Margate, New Jersey was called “South Atlantic City.” A marshy piece of land, Lafferty needed a way to get people to the property in order to sell it. He devised the

scheme of building Lucy and using the howdah on her back as the vantage point from which customers could survey the property. Unfortunately, his scheme did not quite work as he had hoped and six years later Lafferty sold her to John and Sophie Gertzen.

The Gertzens immediately understood the novelty of Lucy and charged visitors to tour her furnished apartment. Lucy was operated as a tourist attraction for nearly 80 years. By the 1960's Lucy was in bad shape due to the harsh shore climate and in the 1970's renovations began. Lucy was moved to her new site and by 1976 the exterior restoration was completed. The interior restoration is still in the process and is nearing completion.



Figure 11 - Lucy the Elephant, Margate, NJ. Photo supplied by Westfield Architects, Haddon Heights, NJ.

⁵⁰ *Lucy the Margate Elephant*. Margate, NJ: Friends of Lucy. [cited 9 March 2000] Available at www.childrensfurniture.net/lucy.

Design Methodology

As we apply the design methodology from Chapter 4 in a step-by-step manner, the first step is to determine why people are drawn to the site. Lucy is understandably an experiential building. The novelty which drew people to her over 100 years ago is still alive and it is that novelty which can still draw a crowd. As an experiential building, Lucy requires greater protection from alterations which would inherently damage the experience for the vast majority.

The architectural significance of Lucy is readily apparent. She is a type of building known as an “architectural folly.” A folly is defined as “a functionally useless structure.”⁵¹ In this way Lucy’s architectural significance is also her historic significance. Additionally, Lucy is historically significant as a landmark for the development of Margate, an example of a New Jersey shore town.

The overall review of Lucy indicates a flat setting with Lucy sitting on top as an object in space. She is not really connected to her setting in any comprehensive way. The shape is that of an elephant. She has four legs that touch the ground and her trunk extends to a bucket of water to form a fifth point of contact. There is not much of a roof, unless you include the canopy on the howdah. Projections, other than those that contribute to the overall elephant shape, are basically non-existent although we may include the two tusks.

⁵¹ Cyril M. Harris, ed. *Illustrated Dictionary of Historic Architecture* (New York: Dover Publications, Inc., 1977), p. 223.

(Incidentally, only male elephants have tusks, so the name Lucy is not quite accurate.)

For recesses and voids we have the spaces beneath Lucy where the legs and trunk lift her off the ground as well as the space inside the howdah. Her façade material appears smooth.

Upon close examination, we find the doors in the legs and that the eyes are actually windows. The skin is not quite as smooth as the overall inspection indicated but is comprised of sheets of metal bolted into place.

Extensive documentation has already been gathered including old photographs, the original patent drawings when Lafferty applied for a patent for his new structure, construction documents from the two renovation projects, and many modern photographs.

Now we have come to the difficult part, the selection of an entrance to provide ADA access. Overall, the site is accessible. It is relatively flat and has access to parking. The entire outside of Lucy is accessible. As a building in the shape of an elephant, part of the experience is the outside and this can be enjoyed by anyone from all angles.

The plans indicate there are two doors into Lucy, one located in each of the rear legs. From each entrance, there is a spiral staircase that leads up into the “belly.” From this point there are many additional levels inside that require even more stairs until you finally reach the howdah. It is obvious that there will never be an accessible path inside

Lucy. An elevator is not an option as there is not enough room inside the legs, the structure may not be able to hold an elevator, and all of the additional stairs negate the usefulness of such a devise.

The doors themselves are not wide enough to accommodate a wheelchair. They are curved into the legs and cutting wider doors would destroy more of the fabric. It might also destroy the structural integrity of the legs themselves.

Once we have exhausted the possibility of using the general public's entrance, we must look at the possibility of other entrances. Could we cut a door into Lucy's side and add a ramp or lift to bring people up to it? Structural considerations aside, most would agree that such an action would greatly detract from the architectural and historical significance of this property.

If Lucy cannot be made physically accessible without seriously compromising her historic integrity, the only solution left is an alternative means for the disabled to experience the interior of the building as provided for by the ADA.⁵² The selection of an alternative solution to compliance is attractive for historic buildings but risky as well. As was discussed in Chapter 2, there is no Federal review of ADA solutions that will be done prior to a lawsuit. It is recommended that any time it is deemed impossible to provide an access solution without damaging the historic integrity of the property, parties

such as the State Historic Preservation Officer and interested disability groups be invited to partake in this decision. This will not insure against liability but will show a good faith effort at providing access which may mitigate against the risks of damages during a lawsuit.

Once the final decision regarding accessibility has been made, the alternative solution can be accomplished in a number of ways. Still photographs of the inside could be posted on pedestals outside Lucy as part of an information program. Better still would be a video presentation in a nearby visitors' center which could be made accessible to the public.

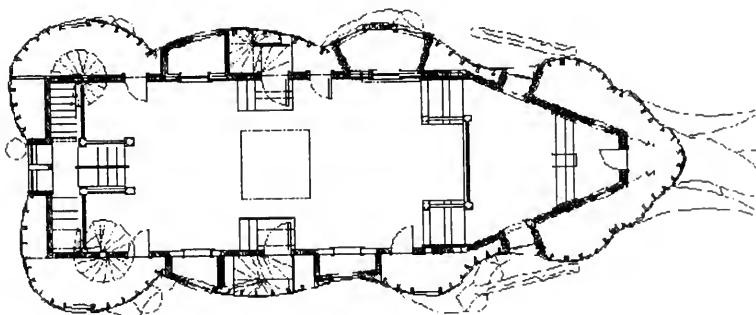


Figure 12 - Plan, Lucy the Elephant, Margate, NJ. Drawing supplied by Westfield Architects, Haddon Heights, NJ. Not to Scale

⁵² U.S. Public Law 101-336, 101st Cong., 2d sess., 23 January 1990. *Americans with Disabilities Act.*, Section 302 (b)(2)(A)(v).

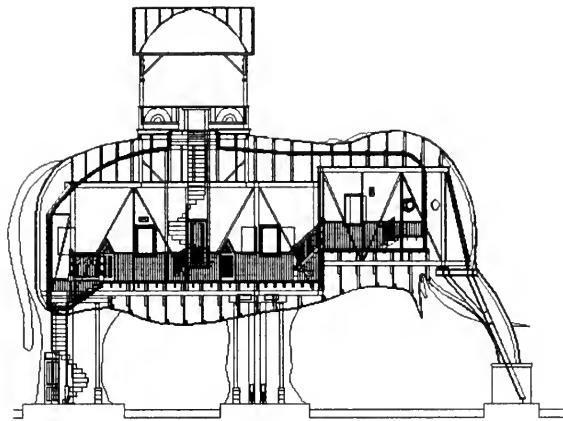


Figure 13 - Section View, Lucy the Elephant, Margate, NJ. Drawing supplied by Westfield Architects, Haddon Heights, NJ. Not to Scale

River House

River House is a center hall Italianate structure built during the first half of the 19th century as a summer residence. It has survived these 150 years mostly being used as a private residence. The current owner, the Schuylkill Valley Environmental Education Center, is undertaking to restore the house and reopen it as a conference center and scholarly retreat. This adaptive reuse presents a number of issues for the accessibility of River House.

*History*⁵³

River House is located on a hill overlooking the Schuylkill River in Philadelphia, PA. Its original purpose was the same as many of its neighboring houses, as a retreat for a well-off city family to get away from the heat and disease of Philadelphia during the summer months. This use is reflected in the large windows and center-hall plan which allow for increased ventilation.

Documentary evidence indicates the house was constructed between 1839 and 1848. The property was sold in 1839, apparently without any existing structures, by a Joseph Gillingham to a person whose name has yet to be deciphered on the original deed. A structure which resembles the house appears on a site map drawn in 1848. The house continued to be held by the same family throughout most of the mid-19th century.

At the end of the 19th century the house and property was purchased by the Houston family as part of their master plan for the entire area. Houston family documents indicate many uses for the River House including an asylum or group home of some sort.

Sometime around 1920 the house was renovated to its current exterior condition. A front porch was apparently removed and the existing stone patio was installed. The windows on the first floor of the river side of the house were replaced with the French doors which

⁵³ George Thomas, interview by author via phone, Philadelphia, 22 March 2000.

open onto this patio. The house, which was originally constructed of stone, was given a coat of stucco for a more uniform appearance.

The Schuylkill Center, which currently owns the house, operates the surrounding property as an environmental preserve. They are looking to restore River House and make it into a working part of their program as a conference center and scholarly retreat. This new use for the house will require access for disabled patrons of the many programs to be held there.

Design Methodology

The first step in the design of an access solution is an analysis of whether you have a functional or experiential building. River House functions as more than a historic house; the building will contain conferences, meetings, and receptions to which people require access. In the case of River House, the function the building houses will be more important to the people that come to the site than the experience of the historic building. In the give and take of historic integrity and disabled access, the scales will need to tip in favor of providing access should a choice present itself.

After we have determined the purpose of the building, we must review the building's architectural significance. Beginning with the overall review, we find the setting of River House to be a hill overlooking the Schuylkill River. This hill, although wooded around the site perimeter, is relatively sparse close to the house. One existing tree which currently shields the house is scheduled to be removed by the Schuylkill Center. There

are no low plantings around the house and the back lot has been cleared for parking.

River House is not integrated into its setting but sits rather like an object in space.

The “object in space” nature of River House is further emphasized by the shape of the building. River House is basically a cube. The walls are flat, further emphasized when the original front porch was removed in favor of the existing stone patio and the stucco was applied to the rough stone of the walls in the early 20th century. The roof is a low hip with a widow’s walk surrounded by a railing. The low nature of the roof does little to relieve the cube-like appearance of the overall shape.

There are basically two projections which do not contribute to the overall shape of the house. The front patio is a dominant feature as it stands approximately four feet tall at its base where the hill drops away from the front of the house. It extends the full width of the façade. The back porch, more indicative of the original porches on the building although, at the very least, the base is a modern addition, extends the full width of the rear façade. The cement and brick floor of this porch sits only six inches above the ground for most of its width. The porch roof is a hip which echoes the roof of the house. It is supported by six thin posts, approximately six inches square.

There are no real recesses or voids in the overall construction of the building due to its cube-like shape. The pattern of the openings is symmetrical on the front façade and basically symmetrical on the west and north facades. The east façade, which contains a strange round window, has a rather irregular window pattern which was probably

modified from the original window configuration. The window openings are graduated so the first floor windows are taller than the second floor windows which are taller than those on the third floor. Since this house was originally intended for summer use, the windows, especially on the first floor, are rather large for the purposes of ventilation. The two original doors in the house, at each end of the center hall, are rather tall and wide, having two leaves each, and are placed opposite each other also for the purposes of ventilation.

The material analysis, which completes the overall inspection of River House, reveals the house is entirely covered in stucco, except for the front patio which is rough stone. The stucco exterior appears to be a 20th century addition. As has been previously discussed, the existing stucco gives the exterior walls a smooth, continuous appearance.

The detailed inspection, conducted close to the house, indicates the moldings on the exterior of the house are not very intricate. There is a bracketed molding under the roof eaves which suggests an Italianate style popular during the first half of the 19th century. The window and door moldings on the exterior are rather thin and plain but these may have been obscured by the subsequent layers of stucco. The moldings on the porch columns, located at the base and capital, are rather delicate and almost imperceptible until seen up close.

The exterior material yields little additional information upon closer inspection. What appears rather smooth in the overall inspection is more rough textured when close-up. It

also appears that the stucco has built-up over the years and may be obscuring some details around the windows and doors.

As for documentation of the house, there are few photographs that show anything before the early 20th century renovation. The Building Diagnostics class has produced many as built plans, sections, and elevations for their use during the analysis of the window and stair designs. Many exterior photographs have also been taken. These will be made available to the Schuylkill Center for their archives.

Determining the entrance to be used for disabled access is not as complicated as it may originally seem. Currently, including the French doors on the river façade, as there are seven doors to River House, the two original which access the central hall, four pairs of French doors, and a newer door on the rear facade which leads into what was once used as a kitchen. The Schuylkill Center intends to use the rear façade as the main entrance since the parking lot is on that side of the house. This discounts the French doors and the original front door as the first choice for access solutions unless the doors on the intended front façade prove unworkable.

The new front façade has adequate access to disabled parking spaces. There are no changes in level from the parking lot to the house so wheelchairs should be able to get onto the property without much difficulty although the current gravel paving material should be reconsidered for something more permanent and even in surface.

It is also a preference of the Schuylkill Center to use the door to the central hall as the main door to the building. This solves the problem of door width since this door, with both its leaves open, is 50 $\frac{3}{4}$ inches wide. This more than exceeds the 32 inches clear width required by the ADA, so a disabled person should be able to enter the building through this door without much difficulty - as long as both leaves are operable. In order to make certain the door is accessible, the hardware should be replaced with a lever type design that is still in keeping with the historic nature of the building. The original hardware should be retained on site for future reference.

Finally, the interior conditions inside the selected door must be considered.

Conveniently, the center hall is on the same level as the rest of the first floor, so a disabled person would have access to the entire first floor from any entrance.

The remaining issue is the distance of the selected entrance above ground level. The existing porch floor is six inches above the ground along most of the width of the porch. The threshold of the door is an additional six inches above the porch floor. This adds up to a total of 12 inches above the ground. Early analysis of a worst case scenario indicates a ramp at the necessary 12 inches of run for every one inch of rise would need to be 12 feet long. This length would easily accommodated by the site since the parking lot is currently located 33 feet from the edge of the porch.



Figure 14 - River House, Philadelphia, PA. Northeast facade.

Since there is plenty of room between the porch and the parking lot, I suggest breaking up the issue of access into two solutions: a subtle grade change to overcome the six inches from the ground to the top of the porch with a ramp to overcome the step to the front door. This accomplishes two objectives. First, by not requiring the ramp to span the entire 12 inches, the length of the ramp can be shortened by half. Second, because the remaining height to be overcome is not more than six inches, the ADA does not require a handrail on the ramp. This allows a more subtle integration of the access solution into the surroundings.

During the design of the new grade, it is important to allow a flat portion of ground at the front of the porch which will accept the bottom of the ramp. If the slope of the grade begins at the base of the porch, the ramp will need to span more than six inches of rise by the time it meets the new grade. From this flat portion, or landing for want of a better term, the new grade can be integrated into the surroundings. The portion of the grade from the landing toward the parking lot as well as toward each side can not exceed 20 inches of run for every one inch of rise. The total run would be ten feet from the platform in each direction. (See Figure 15)

The ramp itself should be constructed out of the same material as the porch floor. Currently, the base of the porch is concrete edged in bricks. If this is to remain, which is doubtful, the ramp can be constructed in a similar manner, possibly paved in bricks so it is differentiated from the original porch. If the base of the porch is to be reconstructed out of wood, which would be a more appropriate material for the historic nature of the house, the ramp should be constructed of wood as well. Whatever the material used for the porch, it will need to be protected from the earth which will be pack against it to form the new grade.

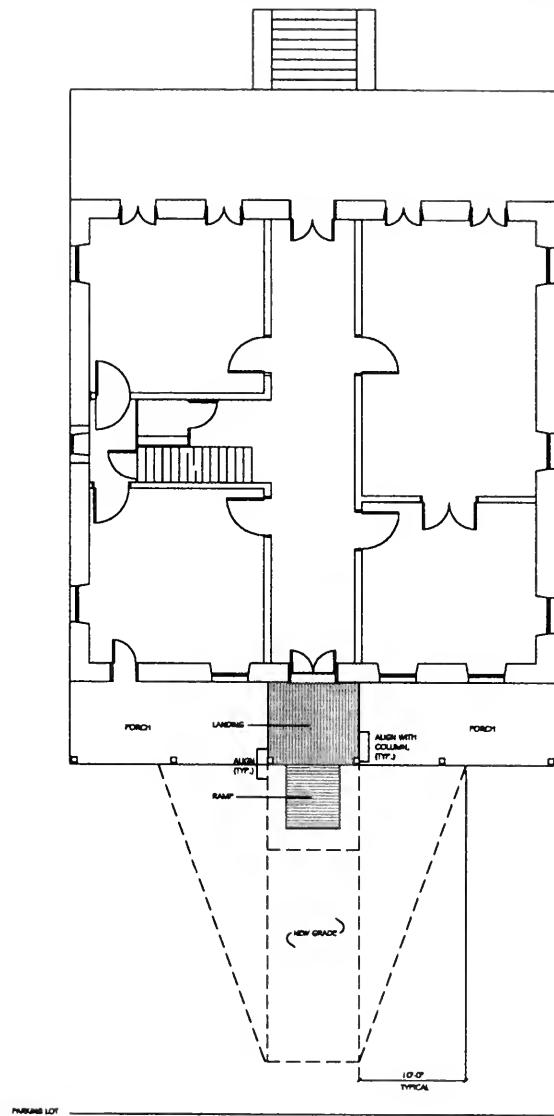


Figure 15 - Plan, River House, Philadelphia, PA. Not to Scale

The ramp will require a landing at the front door. This landing is required by the ADA to be at least the width of the ramp, 36 inches clear, and 60 inches deep. A landing of these dimensions could be constructed but may not blend with the porch as well as it could be. Also, since the doors will need to open out for exit purposes, a generous landing would provide room for a disabled patron to back up when opening the doors. The landing should be as wide as the two columns which flank the front door. This provides a visual termination to the landing behind the columns and draws less attention to the landing. Similarly, the landing should be as deep as the porch so as to blend with the porch from the side perspective. Further, if the landing were not as deep as the porch, the ramp would begin its decent while on top of the porch which presents a hazard to anyone traversing from one side of the porch to the other. (See Figures 16 and 17)

The ramp need not be as wide as the landing and in this case such a width would be overwhelming to the site. The required width of 36 inches clear will be sufficient, but since there will be not handrails, a slightly wider ramp could be built without overwhelming the site. The look established by a wide landing with a narrower ramp is similar to wide porch with narrower stairs so it is not entirely out of the place on a historic building.

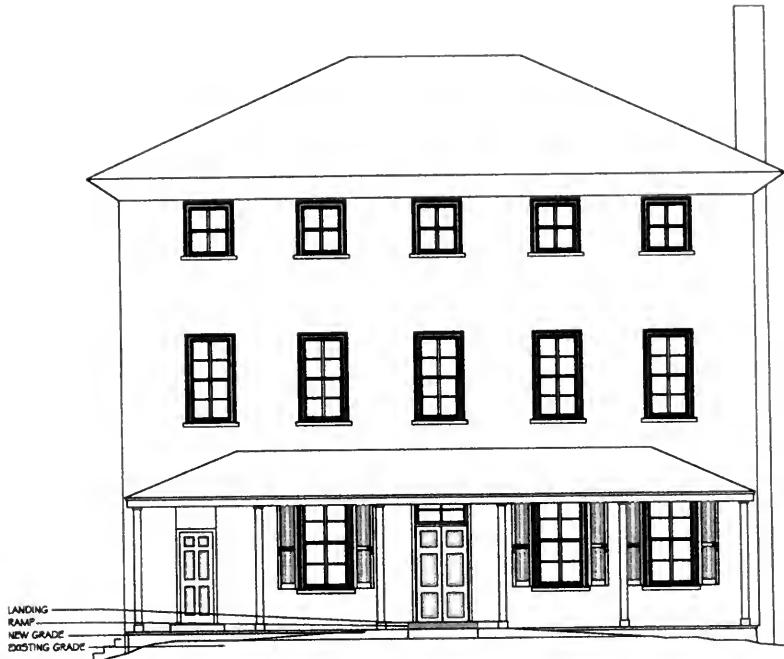


Figure 16 - Elevation, River House, Philadelphia, PA. Northeast facade. Not to Scale

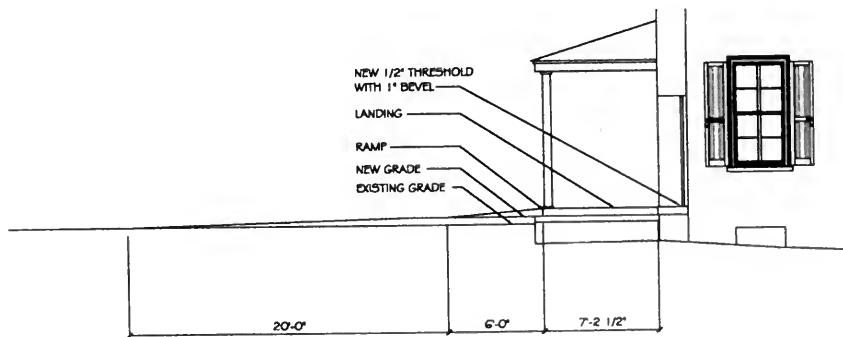


Figure 17 - Section, River House, Philadelphia, PA. Not to Scale.

Conclusion

The above examples, while intended to provide an opportunity to see the proposed design methodology in action, do not necessarily represent the most challenging access problems that may be encountered. As has been previously discussed, the ADA, in the attempt to provide access to all, seems to have focused on the needs of those in wheelchairs since their requirements are among the most physically demanding. It is worth noting again that it is the elevation of the entrance above ground level along with the amount of room around the building that seem to have the most influence on the selection and design of an access solution.

It is most advantageous that the owners of the River House determined that the back entrance is to be used by all their patrons. This entrance, being only two steps above ground level, presents fewer challenges than the original front entrance which is seven. Yet the room around River House allows greater flexibility and design ingenuity than if the house had been located on a much smaller parcel of land. Many historic buildings, especially many public buildings that have formal temple fronts reached by many steps, may not be as flexible. Additionally, buildings such as a city row house with three or four steps to the front door but no surrounding land on which to provide a ramp or lift encounter just as many problems as the public building described above. In both of these cases, an entrance other than the main public entrance may need to be considered for access.

Yet no matter what the ultimate solution is, the design methodology can still perform its function. Each adaptive reuse presents its own challenges to the provision of an access solution. Even when the same methodology is followed, the solutions produced can be wildly different from one another due to the individual nature of the sites. This case-by-case evaluation can provide access solutions that blend with the historic nature of a site and satisfy the ADA Guidelines. This shows that good access solutions can be provided within the context of historic preservation. Compromise might be necessary, but in the end, providing access to a broader segment of society will be a positive step forward for historic properties in their quest to remain vital parts of the communities they have served for so long.

APPENDICES

APPENDIX A

The Secretary of the Interior's Standards for Rehabilitation⁵⁴

The Standards (Department of Interior regulations, 36 CFR 67) pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior, related landscape features and the building's site and environment as well as attached, adjacent, or related new construction. The Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the buildings and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

⁵⁴ W. Brown Morton III et al., *The Secretary of the Interior's Standards for Rehabilitation & Illustrated Guidelines for Rehabilitating Historic Buildings* (Washington, D.C.: U. S. Department of the Interior, National Park Service, Heritage Preservation Services, 1997), pp. vi-vii.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

APPENDIX B

The Americans with Disabilities Act

Titles II and III⁵⁵

TITLE II PUBLIC SERVICES 42 USC 12131.

Subtitle A Prohibition Against Discrimination and Other Generally Applicable Provisions

SEC. 201. DEFINITION. 42 USC 12115.

As used in this title:

(1) Public entity. The term public entity means

(A) any State or local government;

(B) any department, agency, special purpose district, or other instrumentality of a State or States or local government; and

(C) the National Railroad Passenger Corporation, and any commuter authority (as defined in section 103(8) of the Rail Passenger Service Act).

(2) Qualified individual with a disability. The term qualified individual with a disability means an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity.

⁵⁵ Public Law 101-336, 101st Cong., 2d sess. (23 January 1990), *Americans with Disabilities Act.*,

SEC. 202. DISCRIMINATION. 42 USC 12132.

Subject to the provisions of this title, no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.

SEC. 203. ENFORCEMENT. 42 USC 12132.

The remedies, procedures, and rights set forth in section 505 of the Rehabilitation Act of 1973 (29 U.S.C. 794a) shall be the remedies, procedures, and rights this title provides to any person alleging discrimination on the basis of disability in violation of section 202.

SEC. 204. REGULATIONS. 42 USC 12134.

(a) In General. Not later than 1 year after the date of enactment of this Act, the Attorney General shall promulgate regulations in an accessible format that implement this subtitle. Such regulations shall not include any matter within the scope of the authority of the Secretary of Transportation under section 223, 229, or 244.

(b) Relationship to Other Regulations. Except for program accessibility, existing facilities , and communications , regulations under subsection (a) shall be consistent with this Act and with the coordination regulations under part 41 of title 28, Code of Federal Regulations (as promulgated by the Department of Health, Education, and Welfare on January 13, 1978), applicable to recipients of Federal financial assistance under section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794). With respect to program accessibility, existing facilities , and communications , such regulations shall be consistent with regulations and analysis as in part 39 of title 28 of the Code of Federal Regulations, applicable to federally conducted activities under such section 504.

(c) Standards. Regulations under subsection (a) shall include standards applicable to facilities and vehicles covered by this subtitle, other than facilities, stations, rail passenger cars, and vehicles covered by subtitle B. Such standards shall be consistent with the minimum guidelines and requirements issued by the Architectural and Transportation Barriers Compliance Board in accordance with section 504(a) of this Act.

SEC. 205. EFFECTIVE DATE. 42 USC 12131 note.

(a) General Rule. Except as provided in subsection (b), this subtitle shall become effective 18 months after the date of enactment of this Act.

(b) Exception. Section 204 shall become effective on the date of enactment of this Act.

Subtitle B Actions Applicable to Public Transportation Provided by Public Entities
Considered Discriminatory

**PART I PUBLIC TRANSPORTATION OTHER THAN BY AIRCRAFT OR CERTAIN
RAIL OPERATIONS**

SEC. 221. DEFINITIONS. 42 USC 12141.

As used in this part:

- (1) Demand responsive system. The term demand responsive system means any system of providing designated public transportation which is not a fixed route system.
- (2) Designated public transportation. The term designated public transportation means transportation (other than public school transportation) by bus, rail, or any other conveyance (other than transportation by aircraft or intercity or commuter rail transportation (as defined in section 241) that provides the general public with general or special service (including charter service) on a regular and continuing basis.
- (3) Fixed route system. The term fixed route system means a system of providing designated public transportation on which a vehicle is operated along a prescribed route according to a fixed schedule.
- (4) Operates. The term operates , as used with respect to a fixed route system or demand responsive system, includes operation of such system by a person under a contractual or other arrangement or relationship with a public entity.
- (5) Public school transportation. The term public school transportation means transportation by schoolbus vehicles of schoolchildren, personnel, and equipment to and from a public elementary or secondary school and school-related activities.
- (6) Secretary. The term Secretary means the Secretary of Transportation.

SEC. 222. PUBLIC ENTITIES OPERATING FIXED ROUTE SYSTEMS. 42 USC 12142.

- (a) Purchase and Lease of New Vehicles. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a public entity which operates a fixed route system to purchase or lease a new bus, a new rapid rail vehicle, a new light rail vehicle, or any other new vehicle to be used on such system, if the solicitation for such purchase or lease is made after the 30th day following the effective date of this subsection and if such bus, rail vehicle, or other

vehicle is not readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.

(b) Purchase and Lease of Used Vehicles. Subject to subsection (c)(1), it shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a public entity which operates a fixed route system to purchase or lease, after the 30th day following the effective date of this subsection, a used vehicle for use on such system unless such entity makes demonstrated good faith efforts to purchase or lease a used vehicle for use on such system that is readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.

(c) Remanufactured Vehicles.

(1) General rule. Except as provided in paragraph (2), it shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a public entity which operates a fixed route system

(A) to remanufacture a vehicle for use on such system so as to extend its usable life for 5 years or more, which remanufacture begins (or for which the solicitation is made) after the 30th day following the effective date of this subsection; or

(B) to purchase or lease for use on such system a remanufactured vehicle which has been remanufactured so as to extend its usable life for 5 years or more, which purchase or lease occurs after such 30th day and during the period in which the usable life is extended; unless, after remanufacture, the vehicle is, to the maximum extent feasible, readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.

(2) Exception for historic vehicles.

(A) General rule. If a public entity operates a fixed route system any segment of which is included on the National Register of Historic Places and if making a vehicle of historic character to be used solely on such segment readily accessible to and usable by individuals with disabilities would significantly alter the historic character of such vehicle, the public entity only has to make (or to purchase or lease a remanufactured vehicle with) those modifications which are necessary to meet the requirements of paragraph (1) and which do not significantly alter the historic character of such vehicle.

(B) Vehicles of historic character defined by regulations. For purposes of this paragraph and section 228(b), a vehicle of historic character shall be defined by the regulations issued by the Secretary to carry out this subsection.

SEC. 223. PARATRANSIT AS A COMPLEMENT TO FIXED ROUTE SERVICE. 42 USC 12143.

(a) General Rule. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a public entity which operates a fixed route system (other than a system which provides solely commuter bus service) to fail to provide with respect to the operations of its fixed route system, in accordance with this section, paratransit and other special transportation services to individuals with disabilities, including individuals who use wheelchairs, that are sufficient to provide to such individuals a level of service (1) which is comparable to the level of designated public transportation services provided to individuals without disabilities using such system; or (2) in the case of response time, which is comparable, to the extent practicable, to the level of designated public transportation services provided to individuals without disabilities using such system.

(b) Issuance of Regulations. Not later than 1 year after the effective date of this subsection, the Secretary shall issue final regulations to carry out this section.

(c) Required Contents of Regulations.

(1) Eligible recipients of service. The regulations issued under this section shall require each public entity which operates a fixed route system to provide the paratransit and other special transportation services required under this section (A)

(i) to any individual with a disability who is unable, as a result of a physical or mental impairment (including a vision impairment) and without the assistance of another individual (except an operator of a wheelchair lift or other boarding assistance device), to board, ride, or disembark from any vehicle on the system which is readily accessible to and usable by individuals with disabilities;

(ii) to any individual with a disability who needs the assistance of a wheelchair lift or other boarding assistance device (and is able with such assistance) to board, ride, and disembark from any vehicle which is readily accessible to and usable by individuals with disabilities if the individual wants to travel on a route on the system during the hours of operation of the system at a time (or within a reasonable period of such time) when such a vehicle is not being used to provide designated public transportation on the route; and

(iii) to any individual with a disability who has a specific impairment-related condition which prevents such individual from traveling to a boarding location or from a disembarking location on such system; (B) to one other individual accompanying the individual with the disability; and (C) to other individuals, in addition to the one individual described in subparagraph (B), accompanying the individual with a disability provided that space for these additional individuals is available on the paratransit vehicle carrying the individual with a disability and that

the transportation of such additional individuals will not result in a denial of service to individuals with disabilities.

For purposes of clauses (i) and (ii) of subparagraph (A), boarding or disembarking from a vehicle does not include travel to the boarding location or from the disembarking location.

(2) Service area. The regulations issued under this section shall require the provision of paratransit and special transportation services required under this section in the service area of each public entity which operates a fixed route system, other than any portion of the service area in which the public entity solely provides commuter bus service.

(3) Service criteria. Subject to paragraphs (1) and (2), the regulations issued under this section shall establish minimum service criteria for determining the level of services to be required under this section.

(4) Undue financial burden limitation. The regulations issued under this section shall provide that, if the public entity is able to demonstrate to the satisfaction of the Secretary that the provision of paratransit and other special transportation services otherwise required under this section would impose an undue financial burden on the public entity, the public entity, notwithstanding any other provision of this section (other than paragraph (5)), shall only be required to provide such services to the extent that providing such services would not impose such a burden.

(5) Additional services. The regulations issued under this section shall establish circumstances under which the Secretary may require a public entity to provide, notwithstanding paragraph (4), paratransit and other special transportation services under this section beyond the level of paratransit and other special transportation services which would otherwise be required under paragraph (4).

(6) Public participation. The regulations issued under this section shall require that each public entity which operates a fixed route system hold a public hearing, provide an opportunity for public comment, and consult with individuals with disabilities in preparing its plan under paragraph (7).

(7) Plans. The regulations issued under this section shall require that each public entity which operates a fixed route system

(A) within 18 months after the effective date of this subsection, submit to the Secretary, and commence implementation of, a plan for providing paratransit and other special transportation services which meets the requirements of this section; and

(B) on an annual basis thereafter, submit to the Secretary, and commence implementation of, a plan for providing such services.

- (8) Provision of services by others. The regulations issued under this section shall
- (A) require that a public entity submitting a plan to the Secretary under this section identify in the plan any person or other public entity which is providing a paratransit or other special transportation service for individuals with disabilities in the service area to which the plan applies; and
- (B) provide that the public entity submitting the plan does not have to provide under the plan such service for individuals with disabilities.
- (9) Other provisions. The regulations issued under this section shall include such other provisions and requirements as the Secretary determines are necessary to carry out the objectives of this section.
- (d) Review of Plan.
- (1) General rule. The Secretary shall review a plan submitted under this section for the purpose of determining whether or not such plan meets the requirements of this section, including the regulations issued under this section.
- (2) Disapproval. If the Secretary determines that a plan reviewed under this subsection fails to meet the requirements of this section, the Secretary shall disapprove the plan and notify the public entity which submitted the plan of such disapproval and the reasons therefor.
- (3) Modification of disapproved plan. Not later than 90 days after the date of disapproval of a plan under this subsection, the public entity which submitted the plan shall modify the plan to meet the requirements of this section and shall submit to the Secretary, and commence implementation of, such modified plan.
- (e) Discrimination Defined. As used in subsection (a), the term discrimination includes
- (1) a failure of a public entity to which the regulations issued under this section apply to submit, or commence implementation of, a plan in accordance with subsections (c)(6) and (c)(7);
- (2) a failure of such entity to submit, or commence implementation of, a modified plan in accordance with subsection (d)(3);
- (3) submission to the Secretary of a modified plan under subsection (d)(3) which does not meet the requirements of this section; or
- (4) a failure of such entity to provide paratransit or other special transportation services in accordance with the plan or modified plan the public entity submitted to the Secretary under this section.

(f) Statutory Construction. Nothing in this section shall be construed as preventing a public entity

- (1) from providing paratransit or other special transportation services at a level which is greater than the level of such services which are required by this section,
- (2) from providing paratransit or other special transportation services in addition to those paratransit and special transportation services required by this section, or
- (3) from providing such services to individuals in addition to those individuals to whom such services are required to be provided by this section.

SEC. 224. PUBLIC ENTITY OPERATING A DEMAND RESPONSIVE SYSTEM. 42 USC 12144.

If a public entity operates a demand responsive system, it shall be considered discrimination, for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), for such entity to purchase or lease a new vehicle for use on such system, for which a solicitation is made after the 30th day following the effective date of this section, that is not readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, unless such system, when viewed in its entirety, provides a level of service to such individuals equivalent to the level of service such system provides to individuals without disabilities.

SEC. 225. TEMPORARY RELIEF WHERE LIFTS ARE UNAVAILABLE. 42 USC 12145.

(a) Granting. With respect to the purchase of new buses, a public entity may apply for, and the Secretary may temporarily relieve such public entity from the obligation under section 222(a) or 224 to purchase new buses that are readily accessible to and usable by individuals with disabilities if such public entity demonstrates to the satisfaction of the Secretary

- (1) that the initial solicitation for new buses made by the public entity specified that all new buses were to be lift-equipped and were to be otherwise accessible to and usable by individuals with disabilities;
- (2) the unavailability from any qualified manufacturer of hydraulic, electromechanical, or other lifts for such new buses;
- (3) that the public entity seeking temporary relief has made good faith efforts to locate a qualified manufacturer to supply the lifts to the manufacturer of such buses in sufficient time to comply with such solicitation; and

(4) that any further delay in purchasing new buses necessary to obtain such lifts would significantly impair transportation services in the community served by the public entity.

(b) Duration and Notice to Congress. Any relief granted under subsection (a) shall be limited in duration by a specified date, and the appropriate committees of Congress shall be notified of any such relief granted.

(c) Fraudulent Application. If, at any time, the Secretary has reasonable cause to believe that any relief granted under subsection (a) was fraudulently applied for, the Secretary shall

(1) cancel such relief if such relief is still in effect; and

(2) take such other action as the Secretary considers appropriate.

SEC. 226. NEW FACILITIES. 42 USC 12146.

For purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), it shall be considered discrimination for a public entity to construct a new facility to be used in the provision of designated public transportation services unless such facility is readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.

SEC. 227. ALTERATIONS OF EXISTING FACILITIES. 42 USC 12147.

(a) General Rule. With respect to alterations of an existing facility or part thereof used in the provision of designated public transportation services that affect or could affect the usability of the facility or part thereof, it shall be considered discrimination, for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), for a public entity to fail to make such alterations (or to ensure that the alterations are made) in such a manner that, to the maximum extent feasible, the altered portions of the facility are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, upon the completion of such alterations. Where the public entity is undertaking an alteration that affects or could affect usability of or access to an area of the facility containing a primary function, the entity shall also make the alterations in such a manner that, to the maximum extent feasible, the path of travel to the altered area and the bathrooms, telephones, and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, upon completion of such alterations, where such alterations to the path of travel or the bathrooms, telephones, and drinking fountains serving the altered area are not disproportionate to the overall alterations in terms of cost and scope (as determined under criteria established by the Attorney General).

(b) Special Rule for Stations.

(1) General rule. For purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), it shall be considered discrimination for a public entity that provides designate public transportation to fail, in accordance with the provisions of this subsection, to make key stations (as determined under criteria established by the Secretary by regulation) in rapid rail and light rail systems readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.

(2) Rapid rail and light rail key stations.

(A) Accessibility. Except as otherwise provided in this paragraph, all key stations (as determined under criteria established by the Secretary by regulation) in rapid rail and light rail systems shall be made readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as soon as practicable but in no event later than the last day of the 3-year period beginning on the effective date of this paragraph.

(B) Extension for extraordinarily expensive structural changes. The Secretary may extend the 3-year period under subparagraph (A) up to a 30-year period for key stations in a rapid rail or light rail system which stations need extraordinarily expensive structural changes to, or replacement of, existing facilities; except that by the last day of the 20th year following the date of the enactment of this Act at least 2/3 of such key stations must be readily accessible to and usable by individuals with disabilities.

(3) Plans and milestones. The Secretary shall require the appropriate public entity to develop and submit to the Secretary a plan for compliance with this subsection (A) that reflects consultation with individuals with disabilities affected by such plan and the results of a public hearing and public comments on such plan, and (B) that establishes milestones for achievement of the requirements of this subsection.

SEC.228. PUBLIC TRANSPORTATION PROGRAMS AND ACTIVITIES IN EXISTING FACILITIES AND ONE CAR PER TRAIN RULE. 42 USC 12148.

(a) Public Transportation Programs and Activities in Existing Facilities.

(1) In general. With respect to existing facilities used in the provision of designated public transportation services, it shall be considered discrimination, for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), for a public entity to fail to operate a designated public transportation program or activity conducted in such facilities so that, when viewed in the entirety, the program or activity is readily accessible to and usable by individuals with disabilities.

(2) Exception. Paragraph (1) shall not require a public entity to make structural changes to existing facilities in order to make such facilities accessible to individuals who use wheelchairs, unless and to the extent required by section 227(a) (relating to alterations) or section 227(b) (relating to key stations).

(3) Utilization. Paragraph (1) shall not require a public entity to which paragraph (2) applies, to provide to individuals who use wheelchairs services made available to the general public at such facilities when such individuals could not utilize or benefit from such services provided at such facilities.

(b) One Car Per Train Rule.

(1) General rule. Subject to paragraph (2), with respect to 2 or more vehicles operated as a train by a light or rapid rail system, for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), it shall be considered discrimination for a public entity to fail to have at least 1 vehicle per train that is accessible to individuals with disabilities, including individuals who use wheelchairs, as soon as practicable but in no event later than the last day of the 5-year period beginning on the effective date of this section.

(2) Historic trains. In order to comply with paragraph (1) with respect to the remanufacture of a vehicle of historic character which is to be used on a segment of a light or rapid rail system which is included on the National Register of Historic Places, if making such vehicle readily accessible to and usable by individuals with disabilities would significantly alter the historic character of such vehicle, the public entity which operates such system only has to make (or to purchase or lease a remanufactured vehicle with) those modifications which are necessary to meet the requirements of section 222(c)(1) and which do not significantly alter the historic character of such vehicle.

SEC. 229. REGULATIONS. 42 USC 12149.

(a) In General. Not later than 1 year after the date of enactment of this Act, the Secretary of Transportation shall issue regulations, in an accessible format, necessary for carrying out this part (other than section 223).

(b) Standards. The regulations issued under this section and section 223 shall include standards applicable to facilities and vehicles covered by this subtitle. The standards shall be consistent with the minimum guidelines and requirements issued by the Architectural and Transportation Barriers Compliance Board in accordance with section 504 of this Act.

SEC. 230. INTERIM ACCESSIBILITY REQUIREMENTS. 42 USC 12150.

If final regulations have not been issued pursuant to section 229, for new construction or alterations for which a valid and appropriate State or local building permit is obtained prior to the issuance of final regulations under such section, and for which the construction or alteration authorized by such permit begins within one year of the receipt of such permit and is completed under the terms of such permit, compliance with the Uniform Federal Accessibility Standards in effect at the time the building permit is issued shall suffice to satisfy the requirement that facilities be readily accessible to and usable by persons with disabilities as required under sections 226 and 227, except that, if such final regulations have not been issued one year after the Architectural and Transportation Barriers Compliance Board has issued the supplemental minimum guidelines required under section 504(a) of this Act, compliance with such supplemental minimum guidelines shall be necessary to satisfy the requirement that facilities be readily accessible to and usable by persons with disabilities prior to issuance of the final regulations.

SEC. 231. EFFECTIVE DATE. 42 USC 12141 note.

(a) General Rule. Except as provided in subsection (b), this part shall become effective 18 months after the date of enactment of this Act.

(b) Exception. Sections 222, 223 (other than subsection (a)), 224, 225, 227(b), 228(b), and 229 shall become effective on the date of enactment of this Act.

PART II PUBLIC TRANSPORTATION BY INTERCITY AND COMMUTER RAIL

SEC. 241. DEFINITIONS. 42 USC 12161.

As used in this part:

(1) Commuter authority. The term commuter authority has the meaning given such term in section 103(8) of the Rail Passenger Service Act (45 U.S.C. 502(8)).

(2) Commuter rail transportation. The term commuter rail transportation has the meaning given the term commuter service in section 103(9) of the Rail Passenger Service Act (45 U.S.C. 502(9)).

(3) Intercity rail transportation. The term intercity rail transportation means transportation provided by the National Railroad Passenger Corporation.

(4) Rail passenger car. The term rail passenger car means, with respect to intercity rail transportation, single-level and bi-level coach cars, single-level and bi-level dining cars, single-level and bi-level sleeping cars, single-level and bi-level lounge cars, and food service cars.

(5) Responsible person. The term responsible person means

- (A) in the case of a station more than 50 percent of which is owned by a public entity, such public entity;
 - (B) in the case of a station more than 50 percent of which is owned by a private party, the persons providing intercity or commuter rail transportation to such station, as allocated on an equitable basis by regulation by the Secretary of Transportation; and
 - (C) in a case where no party owns more than 50 percent of a station, the persons providing intercity or commuter rail transportation to such station and the owners of the station, other than private party owners, as allocated on an equitable basis by regulation by the Secretary of Transportation.
- (6) Station. The term station means the portion of a property located appurtenant to a right-of-way on which intercity or commuter rail transportation is operated, where such portion is used by the general public and is related to the provision of such transportation, including passenger platforms, designated waiting areas, ticketing areas, restrooms, and, where a public entity providing rail transportation owns the property, concession areas, to the extent that such public entity exercises control over the selection, design, construction, or alteration of the property, but such term does not include flag stops.

SEC. 242. INTERCITY AND COMMUTER RAIL ACTIONS CONSIDERED DISCRIMINATORY. 42 USC 12162.

(a) Intercity Rail Transportation.

- (1) One car per train rule. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person who provides intercity rail transportation to fail to have at least one passenger car per train that is readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, in accordance with regulations issued under section 244, as soon as practicable, but in no event later than 5 years after the date of enactment of this Act.

(2) New intercity cars.

- (A) General rule. Except as otherwise provided in this subsection with respect to individuals who use wheelchairs, it shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person to purchase or lease any new rail passenger cars for use in intercity rail transportation, and for which a solicitation is made later than 30 days after the effective date of this section, unless all such rail cars are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as prescribed by the Secretary of Transportation in regulations issued under section 244.

(B) Special rule for single-level passenger coaches for individuals who use wheelchairs. Single-level passenger coaches shall be required to

- (i) be able to be entered by an individual who uses a wheelchair;
- (ii) have space to park and secure a wheelchair;
- (iii) have a seat to which a passenger in a wheelchair can transfer, and a space to fold and store such passengers wheelchair; and
- (iv) have a restroom usable by an individual who uses a wheelchair, only to the extent provided in paragraph (3).

(C) Special rule for single-level dining cars for individuals who use wheelchairs. Single-level dining cars shall not be required to

- (i) be able to be entered from the station platform by an individual who uses a wheelchair; or
- (ii) have a restroom usable by an individual who uses a wheelchair if no restroom is provided in such car for any passenger.

(D) Special rule for bi-level dining cars for individuals who use wheelchairs. Bi-level dining cars shall not be required to

- (i) be able to be entered by an individual who uses a wheelchair;
- (ii) have space to park and secure a wheelchair;
- (iii) have a seat to which a passenger in a wheelchair can transfer, or a space to fold and store such passengers wheelchair; or
- (iv) have a restroom usable by an individual who uses a wheelchair.

(3) Accessibility of single-level coaches.

(A) General rule. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person who provides intercity rail transportation to fail to have on each train which includes one or more single-level rail passenger coaches

- (i) a number of spaces

(I) to park and secure wheelchairs (to accommodate individuals who wish to remain in their wheelchairs) equal to not less than one-half of the number of single-level rail passenger coaches in such train; and

(II) to fold and store wheelchairs (to accommodate individuals who wish to transfer to coach seats) equal to not less than one-half of the number of single-level rail passenger coaches in such train, as soon as practicable, but in no event later than 5 years after the date of enactment of this Act; and

(ii) a number of spaces

(I) to park and secure wheelchairs (to accommodate individuals who wish to remain in their wheelchairs) equal to not less than the total number of single-level rail passenger coaches in such train; and

(II) to fold and store wheelchairs (to accommodate individuals who wish to transfer to coach seats) equal to not less than the total number of single-level rail passenger coaches in such train as soon as practicable, but in no event later than 10 years after the date of enactment of this Act.

(B) Location. Spaces required by subparagraph (A) shall be located in single-level rail passenger coaches or food service cars.

(C) Limitation. Of the number of spaces required on a train by subparagraph (A), not more than two spaces to park and secure wheelchairs nor more than two spaces to fold and store wheelchairs shall be located in any one coach or food service car.

(D) Other accessibility features. Single-level rail passenger coaches and food service cars on which the spaces required by subparagraph

(A) are located shall have a restroom usable by an individual who uses a wheelchair and shall be able to be entered from the station platform by an individual who uses a wheelchair.

(4) Food service.

(A) Single-level dining cars. On any train in which a single-level dining car is used to provide food service

(i) if such single-level dining car was purchased after the date of enactment of this Act, table service in such car shall be provided to a passenger who uses a wheelchair if

(I) the car adjacent to the end of the dining car through which a wheelchair may enter is itself accessible to a wheelchair;

(II) such passenger can exit to the platform from the car such passenger occupies, move down the platform, and enter the adjacent accessible car described in subclause (I) without the necessity of the train being moved within the station; and

(III) space to park and secure a wheelchair is available in the dining car at the time such passenger wishes to eat (if such passenger wishes to remain in a wheelchair), or space to store and fold a wheelchair is available in the dining car at the time such passenger wishes to eat (if such passenger wishes to transfer to a dining car seat); and

(ii) appropriate auxiliary aids and services, including a hard surface on which to eat, shall be provided to ensure that other equivalent food service is available to individuals with disabilities, including individuals who use wheelchairs, and to passengers traveling with such individuals. Unless not practicable, a person providing intercity rail transportation shall place an accessible car adjacent to the end of a dining car described in clause (i) through which an individual who uses a wheelchair may enter.

(B) Bi-level dining cars. On any train in which a bi-level dining car is used to provide food service

(i) if such train includes a bi-level lounge car purchased after the date of enactment of this Act, table service in such lounge car shall be provided to individuals who use wheelchairs and to other passengers; and

(ii) appropriate auxiliary aids and services, including a hard surface on which to eat, shall be provided to ensure that other equivalent food service is available to individuals with disabilities, including individuals who use wheelchairs, and to passengers traveling with such individuals.

(b) Commuter Rail Transportation.

(1) One car per train rule. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person who provides commuter rail transportation to fail to have at least one passenger car per train that is readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, in accordance with regulations issued under section 244, as soon as practicable, but in no event later than 5 years after the date of enactment of this Act.

(2) New commuter rail cars.

(A) General rule. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person to purchase or lease any new rail passenger cars for use in commuter rail transportation, and for which a solicitation is made later than 30 days after the effective date of this section,

unless all such rail cars are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as prescribed by the Secretary of Transportation in regulations issued under section 244.

(B) Accessibility. For purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), a requirement that a rail passenger car used in commuter rail transportation be accessible to or readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, shall not be construed to require

- (i) a restroom usable by an individual who uses a wheelchair if no restroom is provided in such car for any passenger;
- (ii) space to fold and store a wheelchair; or
- (iii) a seat to which a passenger who uses a wheelchair can transfer.

(c) Used Rail Cars. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person to purchase or lease a used rail passenger car for use in intercity or commuter rail transportation, unless such person makes demonstrated good faith efforts to purchase or lease a used rail car that is readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as prescribed by the Secretary of Transportation in regulations issued under section 244.

(d) Remanufactured Rail Cars.

(1) Remanufacturing. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person to remanufacture a rail passenger car for use in intercity or commuter rail transportation so as to extend its usable life for 10 years or more, unless the rail car, to the maximum extent feasible, is made readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as prescribed by the Secretary of Transportation in regulations issued under section 244.

(2) Purchase or lease. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person to purchase or lease a remanufactured rail passenger car for use in intercity or commuter rail transportation unless such car was remanufactured in accordance with paragraph (1).

(e) Stations

(1) New stations. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a person to build a new station for use in intercity or commuter rail transportation that is not readily

accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as prescribed by the Secretary of Transportation in regulations issued under section 244.

(2) Existing stations.

(A) Failure to make readily accessible.

(i) General rule. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for a responsible person to fail to make existing stations in the intercity rail transportation system, and existing key stations in commuter rail transportation systems, readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as prescribed by the Secretary of Transportation in regulations issued under section 244.

(ii) Period for compliance.

(I) Intercity rail. All stations in the intercity rail transportation system shall be made readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as soon as practicable, but in no event later than 20 years after the date of enactment of this Act.

(II) Commuter rail. Key stations in commuter rail transportation systems shall be made readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, as soon as practicable but in no event later than 3 years after the date of enactment of this Act, except that the time limit may be extended by the Secretary of Transportation up to 20 years after the date of enactment of this Act in a case where the raising of the entire passenger platform is the only means available of attaining accessibility or where other extraordinarily expensive structural changes are necessary to attain accessibility.

(iii) Designation of key stations. Each commuter authority shall designate the key stations in its commuter rail transportation system, in consultation with individuals with disabilities and organizations representing such individuals, taking into consideration such factors as high ridership and whether such station serves as a transfer or feeder station. Before the final designation of key stations under this clause, a commuter authority shall hold a public hearing.

(iv) Plans and milestones. The Secretary of Transportation shall require the appropriate person to develop a plan for carrying out this subparagraph that reflects consultation with individuals with disabilities affected by such plan and that establishes milestones for achievement of the requirements of this subparagraph.

(B) Requirement when making alterations.

- (i) General rule. It shall be considered discrimination, for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), with respect to alterations of an existing station or part thereof in the intercity or commuter rail transportation systems that affect or could affect the usability of the station or part thereof, for the responsible person, owner, or person in control of the station to fail to make the alterations in such a manner that, to the maximum extent feasible, the altered portions of the station are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, upon completion of such alterations.
 - (ii) Alterations to a primary function area. It shall be considered discrimination, for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794), with respect to alterations that affect or could affect the usability of or access to an area of the station containing a primary function, for the responsible person, owner, or person in control of the station to fail to make the alterations in such a manner that, to the maximum extent feasible, the path of travel to the altered area, and the bathrooms, telephones, and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs, upon completion of such alterations, where such alterations to the path of travel or the bathrooms, telephones, and drinking fountains serving the altered area are not disproportionate to the overall alterations in terms of cost and scope (as determined under criteria established by the Attorney General).
- (C) Required cooperation. It shall be considered discrimination for purposes of section 202 of this Act and section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) for an owner, or person in control, of a station governed by subparagraph (A) or (B) to fail to provide reasonable cooperation to a responsible person with respect to such station in that responsible persons efforts to comply with such subparagraph. An owner, or person in control, of a station shall be liable to a responsible person for any failure to provide reasonable cooperation as required by this subparagraph. Failure to receive reasonable cooperation required by this subparagraph shall not be a defense to a claim of discrimination under this Act.

SEC. 243. CONFORMANCE OF ACCESSIBILITY STANDARDS. 42 USC 12163.

Accessibility standards included in regulations issued under this part shall be consistent with the minimum guidelines issued by the Architectural and Transportation Barriers Compliance Board under section 504(a) of this Act.

SEC. 244. REGULATIONS. 42 USC 12164.

Not later than 1 year after the date of enactment of this Act, the Secretary of Transportation shall issue regulations, in an accessible format, necessary for carrying out this part.

SEC. 245. INTERIM ACCESSIBILITY REQUIREMENTS. 42 USC 12165.

(a) Stations. If final regulations have not been issued pursuant to section 244, for new construction or alterations for which a valid and appropriate State or local building permit is obtained prior to the issuance of final regulations under such section, and for which the construction or alteration authorized by such permit begins within one year of the receipt of such permit and is completed under the terms of such permit, compliance with the Uniform Federal Accessibility Standards in effect at the time the building permit is issued shall suffice to satisfy the requirement that stations be readily accessible to and usable by persons with disabilities as required under section 242(e), except that, if such final regulations have not been issued one year after the Architectural and Transportation Barriers Compliance Board has issued the supplemental minimum guidelines required under section 504(a) of this Act, compliance with such supplemental minimum guidelines shall be necessary to satisfy the requirement that stations be readily accessible to and usable by persons with disabilities prior to issuance of the final regulations.

(b) Rail Passenger Cars. If final regulations have not been issued pursuant to section 244, a person shall be considered to have complied with the requirements of section 242 (a) through (d) that a rail passenger car be readily accessible to and usable by individuals with disabilities, if the design for such car complies with the laws and regulations (including the Minimum Guidelines and Requirements for Accessible Design and such supplemental minimum guidelines as are issued under section 504(a) of this Act) governing accessibility of such cars, to the extent that such laws and regulations are not inconsistent with this part and are in effect at the time such design is substantially completed.

SEC. 246. EFFECTIVE DATE. 42 USC 12161 note.

(a) General Rule. Except as provided in subsection (b), this part shall become effective 18 months after the date of enactment of this Act.

(b) Exception. Sections 242 and 244 shall become effective on the date of enactment of this Act.

TITLE III PUBLIC ACCOMMODATIONS AND SERVICES OPERATED BY PRIVATE ENTITIES

SEC. 301. DEFINITIONS. 42 USC 12181.

As used in this title:

- (1) **Commerce.** The term commerce means travel, trade, traffic, commerce, transportation, or communication
 - (A) among the several States;
 - (B) between any foreign country or any territory or possession and any State; or
 - (C) between points in the same State but through another State or foreign country.
- (2) **Commercial facilities.** The term commercial facilities means facilities
 - (A) that are intended for nonresidential use; and
 - (B) whose operations will affect commerce. Such term shall not include railroad locomotives, railroad freight cars, railroad cabooses, railroad cars described in section 242 or covered under this title, railroad rights-of-way, or facilities that are covered or expressly exempted from coverage under the Fair Housing Act of 1968 (42 U.S.C. 3601 et seq.).
- (3) **Demand responsive system.** The term demand responsive system means any system of providing transportation of individuals by a vehicle, other than a system which is a fixed route system.
- (4) **Fixed route system.** The term fixed route system means a system of providing transportation of individuals (other than by aircraft) on which a vehicle is operated along a prescribed route according to a fixed schedule.
- (5) **Over-the-road bus.** The term over-the-road bus means a bus characterized by an elevated passenger deck located over a baggage compartment.
- (6) **Private entity.** The term private entity means any entity other than a public entity (as defined in section 201(1)).
- (7) **Public accommodation.** The following private entities are considered public accommodations for purposes of this title, if the operations of such entities affect commerce

- (A) an inn, hotel, motel, or other place of lodging, except for an establishment located within a building that contains not more than five rooms for rent or hire and that is actually occupied by the proprietor of such establishment as the residence of such proprietor;
- (B) a restaurant, bar, or other establishment serving food or drink;
- (C) a motion picture house, theater, concert hall, stadium, or other place of exhibition or entertainment;
- (D) an auditorium, convention center, lecture hall, or other place of public gathering;
- (E) a bakery, grocery store, clothing store, hardware store, shopping center, or other sales or rental establishment;
- (F) a laundromat, dry-cleaner, bank, barber shop, beauty shop, travel service, shoe repair service, funeral parlor, gas station, office of an accountant or lawyer, pharmacy, insurance office, professional office of a health care provider, hospital, or other service establishment;
- (G) a terminal, depot, or other station used for specified public transportation;
- (H) a museum, library, gallery, or other place of public display or collection;
- (I) a park, zoo, amusement park, or other place of recreation;
- (J) a nursery, elementary, secondary, undergraduate, or postgraduate private school, or other place of education;
- (K) a day care center, senior citizen center, homeless shelter, food bank, adoption agency, or other social service center establishment; and
- (L) a gymnasium, health spa, bowling alley, golf course, or other place of exercise or recreation.

(8) Rail and railroad. The terms rail and railroad have the meaning given the term railroad in section 202(e) of the Federal Railroad Safety Act of 1970 (45 U.S.C. 431(e)).

(9) Readily achievable. The term readily achievable means easily accomplishable and able to be carried out without much difficulty or expense. In determining whether an action is readily achievable, factors to be considered include

- (A) the nature and cost of the action needed under this Act;

- (B) the overall financial resources of the facility or facilities involved in the action; the number of persons employed at such facility; the effect on expenses and resources, or the impact otherwise of such action upon the operation of the facility;
- (C) the overall financial resources of the covered entity; the overall size of the business of a covered entity with respect to the number of its employees; the number, type, and location of its facilities; and
- (D) the type of operation or operations of the covered entity, including the composition, structure, and functions of the workforce of such entity; the geographic separateness, administrative or fiscal relationship of the facility or facilities in question to the covered entity.

(10) Specified public transportation. The term specified public transportation means transportation by bus, rail, or any other conveyance (other than by aircraft) that provides the general public with general or special service (including charter service) on a regular and continuing basis.

(11) Vehicle. The term vehicle does not include a rail passenger car, railroad locomotive, railroad freight car, railroad caboose, or a railroad car described in section 242 or covered under this title.

SEC. 302. PROHIBITION OF DISCRIMINATION BY PUBLIC ACCOMMODATIONS. 42 USC 12182.

(a) General Rule. No individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodation by any person who owns, leases (or leases to), or operates a place of public accommodation.

(b) Construction.

(1) General prohibition.

(A) Activities.

(i) Denial of participation. It shall be discriminatory to subject an individual or class of individuals on the basis of a disability or disabilities of such individual or class, directly, or through contractual, licensing, or other arrangements, to a denial of the opportunity of the individual or class to participate in or benefit from the goods, services, facilities, privileges, advantages, or accommodations of an entity.

(ii) Participation in unequal benefit. It shall be discriminatory to afford an individual or class of individuals, on the basis of a disability or disabilities of such individual or class, directly, or through contractual, licensing, or other arrangements with the

opportunity to participate in or benefit from a good, service, facility, privilege, advantage, or accommodation that is not equal to that afforded to other individuals.

(iii) Separate benefit. It shall be discriminatory to provide an individual or class of individuals, on the basis of a disability or disabilities of such individual or class, directly, or through contractual, licensing, or other arrangements with a good, service, facility, privilege, advantage, or accommodation that is different or separate from that provided to other individuals, unless such action is necessary to provide the individual or class of individuals with a good, service, facility, privilege, advantage, or accommodation, or other opportunity that is as effective as that provided to others.

(iv) Individual or class of individuals. For purposes of clauses (i) through (iii) of this subparagraph, the term individual or class of individuals refers to the clients or customers of the covered public accommodation that enters into the contractual, licensing or other arrangement.

(B) Integrated settings. Goods, services, facilities, privileges, advantages, and accommodations shall be afforded to an individual with a disability in the most integrated setting appropriate to the needs of the individual.

(C) Opportunity to participate. Notwithstanding the existence of separate or different programs or activities provided in accordance with this section, an individual with a disability shall not be denied the opportunity to participate in such programs or activities that are not separate or different.

(D) Administrative methods. An individual or entity shall not, directly or through contractual or other arrangements, utilize standards or criteria or methods of administration

(i) that have the effect of discriminating on the basis of disability; or

(ii) that perpetuate the discrimination of others who are subject to common administrative control.

(E) Association. It shall be discriminatory to exclude or otherwise deny equal goods, services, facilities, privileges, advantages, accommodations, or other opportunities to an individual or entity because of the known disability of an individual with whom the individual or entity is known to have a relationship or association.

(2) Specific prohibitions.

(A) Discrimination. For purposes of subsection (a), discrimination includes

(i) the imposition or application of eligibility criteria that screen out or tend to screen out an individual with a disability or any class of individuals with disabilities from

fully and equally enjoying any goods, services, facilities, privileges, advantages, or accommodations, unless such criteria can be shown to be necessary for the provision of the goods, services, facilities, privileges, advantages, or accommodations being offered;

(ii) a failure to make reasonable modifications in policies, practices, or procedures, when such modifications are necessary to afford such goods, services, facilities, privileges, advantages, or accommodations to individuals with disabilities, unless the entity can demonstrate that making such modifications would fundamentally alter the nature of such goods, services, facilities, privileges, advantages, or accommodations;

(iii) a failure to take such steps as may be necessary to ensure that no individual with a disability is excluded, denied services, segregated or otherwise treated differently than other individuals because of the absence of auxiliary aids and services, unless the entity can demonstrate that taking such steps would fundamentally alter the nature of the good, service, facility, privilege, advantage, or accommodation being offered or would result in an undue burden;

(iv) a failure to remove architectural barriers, and communication barriers that are structural in nature, in existing facilities, and transportation barriers in existing vehicles and rail passenger cars used by an establishment for transporting individuals (not including barriers that can only be removed through the retrofitting of vehicles or rail passenger cars by the installation of a hydraulic or other lift), where such removal is readily achievable; and

(v) where an entity can demonstrate that the removal of a barrier under clause (iv) is not readily achievable, a failure to make such goods, services, facilities, privileges, advantages, or accommodations available through alternative methods if such methods are readily achievable.

(B) Fixed route system.

(i) Accessibility. It shall be considered discrimination for a private entity which operates a fixed route system and which is not subject to section 304 to purchase or lease a vehicle with a seating capacity in excess of 16 passengers (including the driver) for use on such system, for which a solicitation is made after the 30th day following the effective date of this subparagraph, that is not readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.

(ii) Equivalent service. If a private entity which operates a fixed route system and which is not subject to section 304 purchases or leases a vehicle with a seating capacity of 16 passengers or less (including the driver) for use on such system after the effective date of this subparagraph that is not readily accessible to or usable by individuals with disabilities, it shall be considered discrimination for such entity to fail to operate such system so that, when viewed in its entirety, such system ensures a

level of service to individuals with disabilities, including individuals who use wheelchairs, equivalent to the level of service provided to individuals without disabilities.

(C) Demand responsive system. For purposes of subsection (a), discrimination includes

(i) a failure of a private entity which operates a demand responsive system and which is not subject to section 304 to operate such system so that, when viewed in its entirety, such system ensures a level of service to individuals with disabilities, including individuals who use wheelchairs, equivalent to the level of service provided to individuals without disabilities; and

(ii) the purchase or lease by such entity for use on such system of a vehicle with a seating capacity in excess of 16 passengers (including the driver), for which solicitations are made after the 30th day following the effective date of this subparagraph, that is not readily accessible to and usable by individuals with disabilities (including individuals who use wheelchairs) unless such entity can demonstrate that such system, when viewed in its entirety, provides a level of service to individuals with disabilities equivalent to that provided to individuals without disabilities.

(D) Over-the- road buses.

(i) Limitation on applicability. Subparagraphs (B) and (C) do not apply to over-the-road buses.

(ii) Accessibility requirements. For purposes of subsection (a), discrimination includes

(I) the purchase or lease of an over-the-road bus which does not comply with the regulations issued under section 306(a)(2) by a private entity which provides transportation of individuals and which is not primarily engaged in the business of transporting people, and (II) any other failure of such entity to comply with such regulations.

(3) Specific Construction. Nothing in this title shall require an entity to permit an individual to participate in or benefit from the goods, services, facilities, privileges, advantages and accommodations of such entity where such individual poses a direct threat to the health or safety of others. The term direct threat means a significant risk to the health or safety of others that cannot be eliminated by a modification of policies, practices, or procedures or by the provision of auxiliary aids or services.

SEC. 303. NEW CONSTRUCTION AND ALTERATIONS IN PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES. 42 USC 12183.

(a) Application of Term. Except as provided in subsection (b), as applied to public accommodations and commercial facilities, discrimination for purposes of section 302(a) includes

(1) a failure to design and construct facilities for first occupancy later than 30 months after the date of enactment of this Act that are readily accessible to and usable by individuals with disabilities, except where an entity can demonstrate that it is structurally impracticable to meet the requirements of such subsection in accordance with standards set forth or incorporated by reference in regulations issued under this title; and

(2) with respect to a facility or part thereof that is altered by, on behalf of, or for the use of an establishment in a manner that affects or could affect the usability of the facility or part thereof, a failure to make alterations in such a manner that, to the maximum extent feasible, the altered portions of the facility are readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs. Where the entity is undertaking an alteration that affects or could affect usability of or access to an area of the facility containing a primary function, the entity shall also make the alterations in such a manner that, to the maximum extent feasible, the path of travel to the altered area and the bathrooms, telephones, and drinking fountains serving the altered area, are readily accessible to and usable by individuals with disabilities where such alterations to the path of travel or the bathrooms, telephones, and drinking fountains serving the altered area are not disproportionate to the overall alterations in terms of cost and scope (as determined under criteria established by the Attorney General).

(b) Elevator. Subsection (a) shall not be construed to require the installation of an elevator for facilities that are less than three stories or have less than 3,000 square feet per story unless the building is a shopping center, a shopping mall, or the professional office of a health care provider or unless the Attorney General determines that a particular category of such facilities requires the installation of elevators based on the usage of such facilities.

SEC. 304. PROHIBITION OF DISCRIMINATION IN SPECIFIED PUBLIC TRANSPORTATION SERVICES PROVIDED BY PRIVATE ENTITIES. 42 USC 12184.

(a) General Rule. No individual shall be discriminated against on the basis of disability in the full and equal enjoyment of specified public transportation services provided by a private entity that is primarily engaged in the business of transporting people and whose operations affect commerce.

(b) Construction. For purposes of subsection (a), discrimination includes

(1) the imposition or application by a entity described in subsection (a) of eligibility criteria that screen out or tend to screen out an individual with a disability or any class of

individuals with disabilities from fully enjoying the specified public transportation services provided by the entity, unless such criteria can be shown to be necessary for the provision of the services being offered;

(2) the failure of such entity to

(A) make reasonable modifications consistent with those required under section 302(b)(2)(A)(ii);

(B) provide auxiliary aids and services consistent with the requirements of section 302(b)(2)(A)(iii); and

(C) remove barriers consistent with the requirements of section 302(b)(2)(A) and with the requirements of section 303(a)(2);

(3) the purchase or lease by such entity of a new vehicle (other than an automobile, a van with a seating capacity of less than 8 passengers, including the driver, or an over-the-road bus) which is to be used to provide specified public transportation and for which a solicitation is made after the 30th day following the effective date of this section, that is not readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs; except that the new vehicle need not be readily accessible to and usable by such individuals if the new vehicle is to be used solely in a demand responsive system and if the entity can demonstrate that such system, when viewed in its entirety, provides a level of service to such individuals equivalent to the level of service provided to the general public;

(4)(A) the purchase or lease by such entity of an over-the-road bus which does not comply with the regulations issued under section 306(a)(2); and

(B) any other failure of such entity to comply with such regulations; and

(5) the purchase or lease by such entity of a new van with a seating capacity of less than 8 passengers, including the driver, which is to be used to provide specified public transportation and for which a solicitation is made after the 30th day following the effective date of this section that is not readily accessible to or usable by individuals with disabilities, including individuals who use wheelchairs; except that the new van need not be readily accessible to and usable by such individuals if the entity can demonstrate that the system for which the van is being purchased or leased, when viewed in its entirety, provides a level of service to such individuals equivalent to the level of service provided to the general public;

(6) the purchase or lease by such entity of a new rail passenger car that is to be used to provide specified public transportation, and for which a solicitation is made later than 30 days after the effective date of this paragraph, that is not readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs; and

(7) the remanufacture by such entity of a rail passenger car that is to be used to provide specified public transportation so as to extend its usable life for 10 years or more, or the purchase or lease by such entity of such a rail car, unless the rail car, to the maximum extent feasible, is made readily accessible to and usable by individuals with disabilities, including individuals who use wheelchairs.

(c) Historical or Antiquated Cars.

(1) Exception. To the extent that compliance with subsection (b)(2)(C) or (b)(7) would significantly alter the historic or antiquated character of a historical or antiquated rail passenger car, or a rail station served exclusively by such cars, or would result in violation of any rule, regulation, standard, or order issued by the Secretary of Transportation under the Federal Railroad Safety Act of 1970, such compliance shall not be required.

(2) Definition. As used in this subsection, the term historical or antiquated rail passenger car means a rail passenger car

(A) which is not less than 30 years old at the time of its use for transporting individuals;

(B) the manufacturer of which is no longer in the business of manufacturing rail passenger cars; and

(C) which (i) has a consequential association with events or persons significant to the past; or

(ii) embodies, or is being restored to embody, the distinctive characteristics of a type of rail passenger car used in the past, or to represent a time period which has passed.

SEC. 305. STUDY. 42 USC 12185.

a) Purposes. The Office of Technology Assessment shall undertake a study to determine

(1) the access needs of individuals with disabilities to over-the-road buses and over-the-road bus service; and

(2) the most cost-effective methods for providing access to over-the-road buses and over-the-road bus service to individuals with disabilities, particularly individuals who use wheelchairs, through all forms of boarding options.

(b) Contents. The study shall include, at a minimum, an analysis of the following:

(1) The anticipated demand by individuals with disabilities for accessible over-the-road buses and over-the-road bus service.

- (2) The degree to which such buses and service, including any service required under sections 304(b)(4) and 306(a)(2), are readily accessible to and usable by individuals with disabilities.
 - (3) The effectiveness of various methods of providing accessibility to such buses and service to individuals with disabilities.
 - (4) The cost of providing accessible over-the-road buses and bus service to individuals with disabilities, including consideration of recent technological and cost saving developments in equipment and devices.
 - (5) Possible design changes in over-the-road buses that could enhance accessibility, including the installation of accessible restrooms which do not result in a loss of seating capacity.
 - (6) The impact of accessibility requirements on the continuation of over-the-road bus service, with particular consideration of the impact of such requirements on such service to rural communities.
- (c) Advisory Committee. In conducting the study required by subsection (a), the Office of Technology Assessment shall establish an advisory committee, which shall consist of
- (1) members selected from among private operators and manufacturers of over-the-road buses;
 - (2) members selected from among individuals with disabilities, particularly individuals who use wheelchairs, who are potential riders of such buses; and
 - (3) members selected for their technical expertise on issues included in the study, including manufacturers of boarding assistance equipment and devices. The number of members selected under each of paragraphs (1) and (2) shall be equal, and the total number of members selected under paragraphs (1) and (2) shall exceed the number of members selected under paragraph (3).
- (d) Deadline. The study required by subsection (a), along with recommendations by the Office of Technology Assessment, including any policy options for legislative action, shall be submitted to the President and Congress within 36 months after the date of the enactment of this Act. If the President determines that compliance with the regulations issued pursuant to section 306(a)(2)(B) on or before the applicable deadlines specified in section 306(a)(2)(B) will result in a significant reduction in intercity over-the-road bus service, the President shall extend each such deadline by 1 year.
- (e) Review. In developing the study required by subsection (a), the Office of Technology Assessment shall provide a preliminary draft of such study to the Architectural and

Transportation Barriers Compliance Board established under section 502 of the Rehabilitation Act of 1973 (29 U.S.C. 792). The Board shall have an opportunity to comment on such draft study, and any such comments by the Board made in writing within 120 days after the Boards receipt of the draft study shall be incorporated as part of the final study required to be submitted under subsection (d).

SEC. 306. REGULATIONS. 42 USC 12186.

(a) Transportation Provisions.

(1) General rule. Not later than 1 year after the date of the enactment of this Act, the Secretary of Transportation shall issue regulations in an accessible format to carry out sections 302(b)(2) (B) and (C) and to carry out section 304 (other than subsection (b)(4)).

(2) Special rules for providing access to over-the-road buses.

(A) Interim requirements.

(i) Issuance. Not later than 1 year after the date of the enactment of this Act, the Secretary of Transportation shall issue regulations in an accessible format to carry out sections 304(b)(4) and 302(b)(2)(D)(ii) that require each private entity which uses an over-the-road bus to provide transportation of individuals to provide accessibility to such bus; except that such regulations shall not require any structural changes in over-the-road buses in order to provide access to individuals who use wheelchairs during the effective period of such regulations and shall not require the purchase of boarding assistance devices to provide access to such individuals.

(ii) Effective period. The regulations issued pursuant to this subparagraph shall be effective until the effective date of the regulations issued under subparagraph (B).

(B) Final requirement.

(i) Review of study and interim requirements. The Secretary shall review the study submitted under section 305 and the regulations issued pursuant to subparagraph (A).

(ii) Issuance. Not later than 1 year after the date of the submission of the study under section 305, the Secretary shall issue in an accessible format new regulations to carry sections 304(b)(4) and 302(b)(2)(D)(ii) that require, taking into account the purposes of the study under section 305 and any recommendations resulting from such study, each private entity which uses an over-the-road bus to provide transportation to individuals to provide accessibility to such bus to individuals with disabilities, including individuals who use wheelchairs.

- (iii) Effective period. Subject to section 305(d), the regulations issued pursuant to this subparagraph shall take effect
- (I) with respect to small providers of transportation (as defined by the Secretary), 7 years after the date of the enactment of this Act; and
 - (II) with respect to other providers of transportation, 6 years after such date of enactment.
- (C) Limitation on requiring installation of accessible restrooms. The regulations issued pursuant to this paragraph shall not require the installation of accessible restrooms in over-the-road buses if such installation would result in a loss of seating capacity.
- (3) Standards. The regulations issued pursuant to this subsection shall include standards applicable to facilities and vehicles covered by sections 302(b)(2) and 304.
- (b) Other Provisions. Not later than 1 year after the date of the enactment of this Act, the Attorney General shall issue regulations in an accessible format to carry out the provisions of this title not referred to in subsection (a) that include standards applicable to facilities and vehicles covered under section 302.
- (c) Consistency With ATBCB Guidelines. Standards included in regulations issued under subsections (a) and (b) shall be consistent with the minimum guidelines and requirements issued by the Architectural and Transportation Barriers Compliance Board in accordance with section 504 of this Act.
- (d) Interim Accessibility Standards.

- (1) Facilities. If final regulations have not been issued pursuant to this section, for new construction or alterations for which a valid and appropriate State or local building permit is obtained prior to the issuance of final regulations under this section, and for which the construction or alteration authorized by such permit begins within one year of the receipt of such permit and is completed under the terms of such permit, compliance with the Uniform Federal Accessibility Standards in effect at the time the building permit is issued shall suffice to satisfy the requirement that facilities be readily accessible to and usable by persons with disabilities as required under section 303, except that, if such final regulations have not been issued one year after the Architectural and Transportation Barriers Compliance Board has issued the supplemental minimum guidelines required under section 504(a) of this Act, compliance with such supplemental minimum guidelines shall be necessary to satisfy the requirement that facilities be readily accessible to and usable by persons with disabilities prior to issuance of the final regulations.
- (2) Vehicles and rail passenger cars. If final regulations have not been issued pursuant to this section, a private entity shall be considered to have complied with the requirements of this title, if any, that a vehicle or rail passenger car be readily accessible to and usable by individuals with disabilities, if the design for such vehicle or car complies with the

laws and regulations (including the Minimum Guidelines and Requirements for Accessible Design and such supplemental minimum guidelines as are issued under section 504(a) of this Act) governing accessibility of such vehicles or cars, to the extent that such laws and regulations are not inconsistent with this title and are in effect at the time such design is substantially completed.

SEC. 307. EXEMPTIONS FOR PRIVATE CLUBS AND RELIGIOUS ORGANIZATIONS. 42 USC 12187.

The provisions of this title shall not apply to private clubs or establishments exempted from coverage under title II of the Civil Rights Act of 1964 (42 U.S.C. 2000-a(e)) or to religious organizations or entities controlled by religious organizations, including places of worship.

SEC. 308. ENFORCEMENT. 42 USC 12188.

(a) In General.

(1) Availability of remedies and procedures. The remedies and procedures set forth in section 204(a) of the Civil Rights Act of 1964 (42 U.S.C. 2000a-3(a)) are the remedies and procedures this title provides to any person who is being subjected to discrimination on the basis of disability in violation of this title or who has reasonable grounds for believing that such person is about to be subject to discrimination in violation of section 303. Nothing in this section shall require a person with a disability to engage in a futile gesture if such person has actual notice that a person or organization covered by this title does not intend to comply with its provisions.

(2) Injunctive relief. In the case of violations of sections 302(b)(2)(A)(iv) and section 303(a), injunctive relief shall include an order to alter facilities to make such facilities readily accessible to and usable by individuals with disabilities to the extent required by this title. Where appropriate, injunctive relief shall also include requiring the provision of an auxiliary aid or service, modification of a policy, or provision of alternative methods, to the extent required by this title.

(b) Enforcement by the Attorney General.

(1) Denial of rights.

(A) Duty to investigate.

(i) In general. The Attorney General shall investigate alleged violations of this title, and shall undertake periodic reviews of compliance of covered entities under this title.

(ii) Attorney General Certification. On the application of a State or local government, the Attorney General may, in consultation with the Architectural and Transportation Barriers Compliance Board, and after prior notice and a public hearing at which persons, including individuals with disabilities, are provided an opportunity to testify against such certification, certify that a State law or local building code or similar ordinance that establishes accessibility requirements meets or exceeds the minimum requirements of this Act for the accessibility and usability of covered facilities under this title. At any enforcement proceeding under this section, such certification by the Attorney General shall be rebuttable evidence that such State law or local ordinance does meet or exceed the minimum requirements of this Act.

(B) Potential violation. If the Attorney General has reasonable cause to believe that

- (i) any person or group of persons is engaged in a pattern or practice of discrimination under this title; or
- (ii) any person or group of persons has been discriminated against under this title and such discrimination raises an issue of general public importance, the Attorney General may commence a civil action in any appropriate United States district court.

(2) Authority of court. In a civil action under paragraph (1)(B), the court

(A) may grant any equitable relief that such court considers to be appropriate, including, to the extent required by this title

- (i) granting temporary, preliminary, or permanent relief;
- (ii) providing an auxiliary aid or service, modification of policy, practice, or procedure, or alternative method; and
- (iii) making facilities readily accessible to and usable by individuals with disabilities;

(B) may award such other relief as the court considers to be appropriate, including monetary damages to persons aggrieved when requested by the Attorney General; and

(C) may, to vindicate the public interest, assess a civil penalty against the entity in an amount

- (i) not exceeding \$50,000 for a first violation; and
- (ii) not exceeding \$100,000 for any subsequent violation.

(3) Single violation. For purposes of paragraph (2)(C), in determining whether a first or subsequent violation has occurred, a determination in a single action, by judgment or

settlement, that the covered entity has engaged in more than one discriminatory act shall be counted as a single violation.

(4) **Punitive damages.** For purposes of subsection (b)(2)(B), the term monetary damages and such other relief does not include punitive damages.

(5) **Judicial consideration.** In a civil action under paragraph (1)(B), the court, when considering what amount of civil penalty, if any, is appropriate, shall give consideration to any good faith effort or attempt to comply with this Act by the entity. In evaluating good faith, the court shall consider, among other factors it deems relevant, whether the entity could have reasonably anticipated the need for an appropriate type of auxiliary aid needed to accommodate the unique needs of a particular individual with a disability.

SEC. 309. EXAMINATIONS AND COURSES. 42 USC 12189.

Any person that offers examinations or courses related to applications, licensing, certification, or credentialing for secondary or postsecondary education, professional, or trade purposes shall offer such examinations or courses in a place and manner accessible to persons with disabilities or offer alternative accessible arrangements for such individuals.

SEC. 310. EFFECTIVE DATE. 42 USC 12181 note.

(a) **General Rule.** Except as provided in subsections (b) and (c), this title shall become effective 18 months after the date of the enactment of this Act.

(b) **Civil Actions.** Except for any civil action brought for a violation of section 303, no civil action shall be brought for any act or omission described in section 302 which occurs

(1) during the first 6 months after the effective date, against businesses that employ 25 or fewer employees and have gross receipts of \$1,000,000 or less; and

(2) during the first year after the effective date, against businesses that employ 10 or fewer employees and have gross receipts of \$500,000 or less.

(c) **Exception.** Sections 302(a) for purposes of section 302(b)(2)(B) and (C) only, 304(a) for purposes of section 304(b)(3) only, 304(b)(3), 305, and 306 shall take effect on the date of the enactment of this Act.

APPENDIX C

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